2019

Geauga County

Community Health Needs Assessment

Examining the health of Geauga County

Released on 12.17.2019

Foreword

The Partnership for a Healthy Geauga is pleased to present the 2019 Geauga County Community Health Needs Assessment. This report provides a snapshot of the health of our community that was collected in adults ages 19 years and older. Wherever possible, local findings have been compared to other local, regional, state, and national data.

The basis for this survey was the Centers for Disease Control and Prevention's (CDC) Behavioral Risk Factor Surveillance Survey (BRFSS). In addition to the CDC survey, planning partners identified local health indicators that were included in the questionnaires.

The statistics contained in this report provide valid and reliable measures of the collective health of Geauga County residents. This document will guide the Partnership for a Healthy Geauga over the next few years to strengthen the local public health system and provide programs and services that will improve the health and well-being of Geauga County residents.

This report would not exist without the financial support of many public and private agencies, as well as the dedicated work of planning partners who took the time to carefully plan and carry out the assessment. Special thanks are given to Britney Ward and Emily Golias of the Hospital Council of Northwest Ohio for guiding us through the health assessment process.

It is our intent to periodically repeat this process in an effort to measure improvements and identify emerging issues in population health. It is also our hope that this assessment will stimulate new collaborations among public and private agencies during economically challenging times.

Sincerely,

Partnership for a Healthy Geauga

Acknowledgements

The 2019 Geauga County Community Health Assessment was funded by:

Geauga Public Health
University Hospitals

The 2019 Geauga County Community Health Assessment report was commissioned by the Partnership for a Healthy Geauga:

- CASA for KIDS of Geauga County
- Catholic Charities Community Services
- Chagrin Falls Park Community Center
- DDC Clinic
- Family Planning Association of Northeast Ohio, Inc. (A Division of Signature Health)
- Family Pride
- Geauga County Board of Developmental Disabilities
- Geauga County Board of Health
- Geauga County Board of Mental Health & Recovery Services
- Geauga County Clerk of Courts
- Geauga County Commissioners
- Geauga County Department on Aging
- Geauga County Educational Service Center: (Representing all Geauga County School Districts)
- Geauga Public Health
- Geauga County Health District Advisory Council
- Geauga County Hunger Task Force
- Geauga County Job and Family Services
- Geauga County Public Library System
- Geauga County Residents
- Geauga County Sheriff
- Geauga County Township Association
- Geauga Family First Council
- Geauga Park District
- Lake-Geauga Head Start
- Lake Geauga Recovery Centers
- Life Act
- Middlefield Care Center
- NAMI Geauga
- Ohio Department of Health
- Ravenwood Mental Health Center
- Starting Point
- Torchlight Youth Mentoring Alliance
- United Way Services of Geauga County
- University Hospitals Geauga Medical Center
- WomenSafe, Inc.

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Project Management, Secondary Data, Data Collection, and Report Development
Hospital Council of Northwest Ohio

The Hospital Council of Northwest Ohio (HCNO) is a 501(c)3 non-profit regional hospital association located in Toledo, Ohio. They facilitate community health needs assessments and planning processes in 40+ counties in Ohio, Michigan, and Oregon. Since 2004, they have used a process that can be replicated in any county that allows for comparisons from county to county, within the region, the state, and the nation. HCNO works with coalitions in each county to ensure a collaborative approach to community health improvement that includes multiple key stakeholders, such as those listed above. All HCNO project staff have their master's degree in public health, with emphasis on epidemiology and health education.

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Hospital Utilization and Discharge Data Compilation and Analysis

Cypress Research Group

To see data compared to other counties, please visit the HCNO's Data Link website at:

http://www.hcno.org/community-services/data-link/

The 2019 Geauga County Community Health Assessment is available at:

Hospital Council of Northwest Ohio
http://www.hcno.org/community-services/community-health-assessments/

Geauga Public Health
http://gphohio.org

University Hospitals
www.UHhospitals.org/CHNA-IS

Written Comments

Individuals are encouraged to submit written comments, questions, or other feedback about University Hospitals' strategies to communitybenefit@UHhospitals.org. Please make sure to include the name of the UH Facility that you are commenting about, and if possible, a reference to the appropriate section within the document.

Table of Contents

Executive Summary

This executive summary provides an overview of health-related data for Geauga County adults (ages 19 and older) who participated in a county-wide health assessment survey from February to May 2019. The findings are based on self-administered surveys using a structured questionnaire. The questions were modeled after the survey instruments used by the Centers for Disease Control and Prevention for their national and state Behavioral Risk Factor Surveillance System (BRFSS). The Hospital Council of Northwest Ohio (HCNO) collected the data, guided the health assessment process, and integrated sources of primary and secondary data into the final report.

The 2019 Geauga County Community Health Needs Assessment represents an exciting collaboration between University Hospitals Geauga Medical Center and Geauga Public Health on behalf of the Partnership for a Healthy Geauga. This assessment meets the requirements set forth under Treas. Reg. § 1.501(r) ("501(r) Regulations") and for the purposes of meeting these requirements, serves as the 2019 Community Health Needs Assessment ("CHNA") for UH Geauga Medical Center. Conducting periodic CHNAs are one critical way in which UH Geauga Medical Center is working with partners to identify the greatest health needs, enabling it to ensure its resources are appropriately directed toward outreach, prevention, education and wellness opportunities where the greatest impact can be realized. The 2019 Geauga County CHNA will serve as a foundation for developing a collaborative Implementation Strategy (IS) to address identified needs.

Similar to the CHNAs that hospitals conduct, completing a Community Health Assessment ("CHA") and a corresponding Community Health Improvement Plan ("CHIP") is an integral part of the process that local and state health departments must undertake to obtain accreditation through the Public Health Accreditation Board ("PHAB"). This assessment meets the requirements for PHAB accreditation. The Ohio Department of Health requires all local health departments to be accredited by 2020. The previous CHA and CHIP conducted by Geauga Public Health were performed independently from hospital CHNAs.

Additionally, the state of Ohio through ORC §3701.981, mandates that all tax-exempt hospitals collaborate with their local health departments on community health assessments (CHA) and community health improvement plans (CHIP). This will reduce duplication of resources and provide a more comprehensive approach to addressing health improvement. In addition, local hospitals have to align with Ohio's State Health Assessment (SHA) and State Health Improvement Plan (SHIP). This requires alignment of the CHNA/CHA process timeline and indicators beginning January 1, 2020.

HCNO worked with Partnership for a Healthy Geauga to create one county-level CHNA/CHA that serves both the hospital and health department, as well as the entire Geauga County community. This was done to exhibit their shared definition of community, data collection and analysis and identification of priority needs. It also aligns with the same three-year interval as the 2019 State Health Assessment. This shift in the way health assessments are conducted is a deliberate attempt by the partners to work together more effectively and efficiently to comprehensively address the needs of the community. The 2019 Assessment also reflects the partners' desire to align health assessment planning both among partners at the local level and with state population health planning efforts – as described more fully in *Improving Population Health Planning in Ohio: Guidance for Aligning State and Local Efforts*, released by the Ohio Department of Health (ODH).

Hospital Internal Revenue Services (IRS) Requirements

Certain hospitals as set forth in the Section 501(r) regulations are required to complete a CHNA and corresponding implementation strategy at least once every three years in accordance with regulations promulgated by the Internal Revenue Service pursuant to the Patient Protection and Affordable Care Act (ACA), 2010[1]. UH Geauga Medical Center's last CHNA was adopted by its board on September 27, 2018.

[1] The Patient Protection and Affordable Care Act (Pub. L. 111-148) added Section 501(r) to the Internal Revenue Code, which imposes new requirements on nonprofit hospitals in order to qualify for an exemption under Section 501(c)(3) and adds new reporting requirements for such hospitals under Section 6033(b) of the Internal Revenue Code. UH followed the final rule entitled "Additional Requirements for Charitable Hospitals; Community Health Needs Assessments for Charitable Hospitals".

DEFINITION OF COMMUNITY & SERVICE AREA DETERMINATION

The community has been defined as Geauga County. About two-fifths (41%) of UH Geauga Medical Center's discharges are residents of Geauga County. In addition, University Hospitals collaborates with multiple stakeholders, most of which provide services at the county-level. In looking at the community population served by the hospital facilities and Geauga County as a whole, it was clear that all of the facilities and partnering organizations involved in the collaborative assessment, define their community to be the same. Defining the community as such allows the hospital to readily collaborate with public health partners for both community health assessments and health improvement planning. Per Section 501(r) federal compliance, a joint CHNA is only allowable if it meets all the requirements of a separate CHNA; clearly identifies the hospital facilities involved; and if all of the collaborating hospital facilities and organizations included in the joint CHNA define their community to be the same[2]. This assessment meets 501(r) federal compliance for UH Geauga Medical Center.

INCLUSION OF VULNERABLE POPULATIONS

The Geauga collaborative, which includes UH Geauga Medical Center, intentionally elected to use a random household survey to incorporate a broad range of perspectives across the county. The data is de-identified and aggregated in such a way to show several demographic categories such as income, gender, age, etc. to further identify populations experiencing adverse conditions. It is described more fully in the Primary Data Collection Methods section of this report. Additionally, the planning committee itself includes a variety of human service organizations working collaboratively to complete the assessment.

PROCESS & METHODS FOR ENGAGING COMMUNITY

This CHNA process was commissioned by the Partnership for a Healthy Geauga. This coalition has been in existence for nine years and has approximately 40 member organizations. Multiple sectors, including the general public, were asked through email list servs, social media, and public notices to participate in the process which included defining the scope of the project, choosing questions for the surveys, reviewing initial data, planning a community release, and identifying and prioritizing needs. Thirty-five organizations (see "Acknowledgments" section) worked together to create one comprehensive assessment. The general public will be invited to attend the release of the report and provide qualitative feedback. Geauga County partners will continue to be invited to participate in the strategy development stage of the process. Additionally, the mail survey, described more fully in the Primary Data Collection Methods section of this report was the primary instrument used to engage and receive input from the community.

QUANTITATIVE & QUALITATIVE DATA ANALYSIS

Data for the 2019 CHNA were obtained by independent researchers from the Toledo-based Hospital Council of Northwest Ohio and their partners at the University of Toledo, who administered surveys to a cross-sectional, randomized sample of Geauga County adults aged 19 years and older. The survey instrument contained both customized questions and a set of core questions taken from the Center for Disease Control and Prevention's Behavioral Risk Factor Surveillance System. The number of surveys completed and analyzed met the threshold for statistical significance at the 95% confidence level, with a 5% margin of error. Wherever possible, local findings have been compared to other local, regional, state, and national data. As we move forward with planning strategies, we continue to commit to serving those in our county who experience health and basic needs disparities. Detailed data collection methods are described later in this section.

Requirement of a Section 4959 Excise Tax Return and Time for Filing the Return, was published by the IRS on December 31, 2014, and requires compliance after December 29, 2015.

[2] §1.501r-3(b)(6)(v)

IDENTIFYING & PRIORITIZING NEEDS

The Partnership for a Healthy Geauga, of which UH Geauga Medical Center is a member, met in September 2019 to review the findings of the primary and secondary data.

UH Geauga Medical Center contracted with the Hospital Council of Northwest Ohio (HCNO), a neutral, regional, nonprofit hospital association, to facilitate the CHNA/CHA and IS/CHIP process. Geauga Public Health invited various community stakeholders to participate in the community health improvement process. Data from the most recent CHNA was carefully considered and categorized into community priorities. This was done using the National Association of County and City Health Officials' (NACCHO) national framework, Mobilizing for Action through Planning and Partnerships (MAPP). This process will also be used to develop the Community Health Improvement Plan/Implementation Strategy. Over the next three years, these priorities and strategies will be implemented at the county-level with the hope to improve population health and create lasting, sustainable change.

Based on the 2019 Geauga County CHNA, key issues were identified. Overall, there were 8 main key issues identified by the committee. The Partnership for a Healthy Geauga then completed a ranking exercise, giving a score for magnitude, seriousness of the consequence and feasibility of correcting, resulting in an average score for each issue identified. Each organization was then given 5 votes to identify their top 5 key issues that they ranked; afterwards, Partnership for a Healthy Geauga came to a consensus. This process determined the priorities that Geauga County will focus on over the next three years. Strategies for the key issues will be outlined in the 2020-2022 IS/CHIP.

Geauga County is focused on the following three priority areas: 1) mental health, 2) addiction 3) chronic disease. The three priority areas reflect the broad interests of the community. Additionally, Geauga County will focus on the following cross-cutting factors within the strategy development process that affect all three priority areas: healthcare system and access, and social determinants of health.

UH Geauga Medical Center will address all three priority areas.

POTENTIAL RESOURCES AVAILABLE TO ADDRESS NEEDS

Priorities identified through the MAPP planning process, will result in a comprehensive 2020-2022 Geauga County Community Health Improvement Plan (CHIP). The CHIP will serve as the 2020-2022 Community Health Implementation Strategy (IS) for UH Geauga Medical Center. Potential resources available can be found in Appendix VII.

EVALUATION OF IMPACT

The evaluation of impact is a report on the actions taken and effectiveness of strategies implemented since the last community health needs assessment. UH Geauga Medical Center conducted its last CHNA in 2018. The evaluation of impact can be found on page 23 of this report.

CHNA AVAILABILITY

The 2019 Geauga County Community Health Needs Assessment, as well as the various other assessments used in creating this report can be found at the following websites:

Hospital Council of Northwest Ohio
http://www.hcno.org/community-services/community-health-assessments/

Geauga Public Health
http://gphohio.org

University Hospitals
www.UHhospitals.org/CHNA-IS

ADOPTION BY BOARD

University Hospitals adopted the 2019 Geauga County Community Health Needs Assessment on December 17, 2019. This assessment meets the CHNA requirements set forth under Treas. Reg. § 1.501(r) and serves as the 2019 Community Health Needs Assessment for UH Geauga Medical Center.

Mobilizing for Action through Planning & Partnerships (MAPP) Process Overview

National Public Health Accreditation status through the Public Health Accreditation Board (PHAB) requires Community Health Assessments (CHAs) to be completed at least every five years. The purpose of the community health assessment is to learn about the health of our community, including health issues and disparities, contributing factors that impact health outcomes, and community assets and resources that can be mobilized to improve population health.

This 2019 CHA was developed using the Mobilizing Action through Partnerships and Planning (MAPP) process, which is a nationally adopted framework developed by the National Association of County and City Health Officials (NACCHO) (see Figure 1.1). MAPP is a community-driven planning process for improving community health and is flexible in its implementation, meaning that the process does not need to be completed in a specific order. This process was facilitated by HCNO in collaboration with a broad range of local agencies representing a variety of sectors of the community. This process involved the following six phases:

1. Organizing for success and partnership development
During this first phase, community partners examined the structure of its planning process to build commitment and engage partners in the development of a plan that could be realistically implemented. With a steering committee already in place, members examined current membership to determine whether additional stakeholders and/or partners should be engaged, its meeting schedule (which occurs on a quarterly basis and more frequently as needed), and responsibilities of partnering organizations for driving change. The steering committee ensured that the process involved local public health, health care, faith-based communities, schools, local leadership, businesses, organizations serving minority populations, and other stakeholders in the community health improvement process.

Figure 1.1 The MAPP Framework

2. Visioning
Next, steering committee members re-examined its vision and mission. Vision and values statements provide focus, purpose, and direction to the CHA/CHIP so that participants collectively achieve a shared vision for the future. A shared community vision provides an overarching goal for the community—a statement of what the ideal future looks like. Values are the fundamental principles and beliefs that guide a community-driven planning process.

3. The four assessments
While each assessment yields valuable information, the value of the four MAPP assessments is multiplied considering results as a whole. The four assessments include: The Community Health Status Assessment (CHSA), the Local Public Health System Assessment (LPHSA), the Forces of Change (FOC) Assessment, and the Community Themes and Strengths Assessment (CTSA).

4. Identifying strategic issues
The process to formulate strategic issues occurs during the prioritization process of the CHA/CHIP. The committee considers the results of the assessments, including data collected from community members (primary data) and existing statistics (secondary data) to identify key health issues. Upon identifying the key health issues, an objective ranking process is used to prioritize health needs for the CHIP.

In order to identify strategic issues, the steering committee considers findings from the visioning process and the MAPP assessments in order to understand why certain issues remain constant across the assessments. The steering committee uses a strategic approach to prioritize issues that would have the greatest overall impact to drive population health improvement and would be feasible, given the resources available in the community and/or needed, to accomplish. The steering committee also arranged issues that were related to one another, for example, chronic disease related conditions, which could be addressed through increased or improved coordination of preventative services. Finally, the steering committee members considered the urgency of issues and the consequences of not addressing certain items.

5. Formulate goals and strategies
Following the prioritization process, a gap analysis is completed in which committee members identify gaps within each priority area, identify existing resources and assets, and potential strategies to address the priority health needs. Following this analysis, the committee to formulate various goals, objectives, and strategies to meet the prioritized health needs.

6. Action cycle
The steering committee begins implementation of strategies as part of the next community health improvement cycle. Both progress data to track actions taken as part of the CHIP's implementation and health outcome data (key population health statistics from the CHA) are continually tracked through ongoing meetings. As the end of the CHIP cycle, partners review progress to select new and/or updated strategic priorities based on progress and the latest health statistics.

2019 Ohio State Health Assessment (SHA)

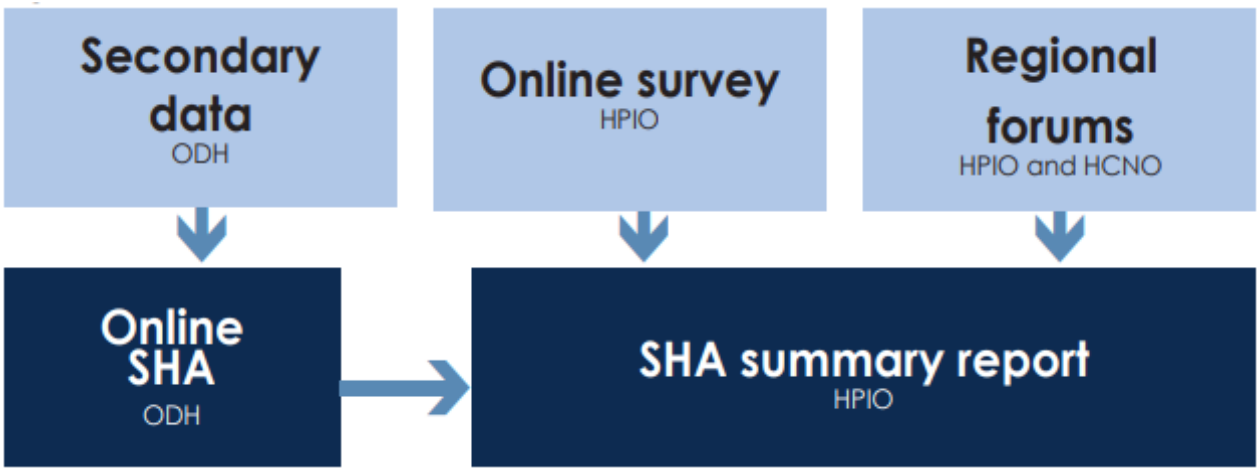
The 2019 Ohio State Health Assessment (SHA) provides data needed to inform health improvement priorities and strategies in the state. This assessment includes over 140 metrics, organized into data profiles, as well as information gathered through five regional forums, online surveys completed by over 300 stakeholders, and advisory and steering committee members who represented 13 state agencies, including sectors beyond health.

Similar to the 2019 Ohio SHA, the 2019 Williams County Community Health Assessment (CHA) examined a variety of metrics from various areas of health including, but not limited to, health behaviors, chronic disease, access to health care, and social determinants of health. Additionally, the CHA studied themes and perceptions from local public health stakeholders from a wide variety of sectors. **Note: This symbol will be displayed in the trend summary when an indicator directly aligns with the 2019 Ohio SHA.**

The interconnectedness of Ohio's greatest health challenges, along with the overall consistency of health priorities identified in this assessment, indicates many opportunities for collaboration between a wide variety of partners at and between the state and local level, including physical and behavioral health organizations and sectors beyond health. It is our hope that this CHA will serve as a foundation for such collaboration.

To view the 2019 Ohio State Health Assessment, please visit: https://odh.ohio.gov/wps/portal/gov/odh/explore-data-and-stats/interactive-applications/2019-Online-State-Health-Assessment

FIGURE 1.1 | Components of the 2019 SHA



Primary Data Collection Methods

DESIGN

This community health needs assessment was cross-sectional in nature and included a written survey of adults within Geauga County. From the beginning, community leaders were actively engaged in the planning process and helped define the content, scope, and sequence of the study. Active engagement of community members throughout the planning process is regarded as an important step in completing a valid needs assessment.

INSTRUMENT DEVELOPMENT

One survey instrument was designed and pilot tested for adults in this study. As a first step in the design process, health education researchers from the University of Toledo and staff members from HCNO met to discuss potential sources of valid and reliable survey items that would be appropriate for assessing the health status and health needs of adults. The investigators decided to derive the majority of the survey items from the BRFSS. This decision was based on being able to compare local data with state and national data.

The project coordinator from the Hospital Council of Northwest Ohio conducted a series of meetings with the Partnership for a Healthy Geauga. During these meetings, HCNO and the planning committee reviewed and discussed banks of potential survey questions from the BRFSS survey. Based on input from the Partnership for a Healthy Geauga, the project coordinator composed drafts of the survey containing 115 items. Health education researchers from the University of Toledo reviewed and approved the drafts.

SAMPLING

The sampling frame for the adult survey consisted of adults ages 19 and over living in Geauga County. There were 67,862 persons ages 19 and over living in Geauga County. The investigators conducted a power analysis to determine what sample size was needed to ensure a 95% confidence level with a corresponding margin of error of 5% (i.e., we can be 95% sure that the "true" population responses are within a 5% margin of error of the survey findings). A sample size of at least 382 adults was needed to ensure this level of confidence. The random sample of mailing addresses of adults from Geauga County was obtained from Melissa Data Corporation in Rancho Santa Margarita, California.

PROCEDURE

Prior to mailing the survey to adults, the project team mailed an advance letter to 1,200 adults in Geauga County. This advance letter was personalized; printed on Partnership for a Healthy Geauga stationery; and signed by Thomas Quade, Geauga County Health Commissioner. The letter introduced the county health assessment project and informed the readers that they may be randomly selected to receive the survey. The letter also explained that the respondents' confidentiality would be protected and encouraged the readers to complete and return the survey promptly if they were selected.

Two weeks following the advance letter, a three-wave mailing procedure was implemented to maximize the survey return rate. The initial mailing included a personalized hand signed cover letter describing the purpose of the study, a questionnaire printed on white paper, a self-addressed stamped return envelope, and a $2 incentive. Approximately two weeks after the first mailing, a second wave mailing included another personalized cover letter encouraging the recipient to reply, another copy of the questionnaire on white paper, and another reply envelope. To maximize survey responses, a third wave mailing was sent out to 350 additional adults in Geauga County. A letter explaining the purpose of the health assessment project, a questionnaire, a self-addressed stamped return envelope, and a $2 incentive were included.

The response rate for the mailing was 26% (n=382: CI=± 4.99). This return rate and sample size means that the responses in the health assessment should be representative of the entire county.

DATA ANALYSIS

Individual responses were anonymous. Only group data was available. All data was analyzed by health education researchers at the University of Toledo using SPSS 24.0. Crosstabs were used to calculate descriptive statistics for the data presented in this report. To be representative of Geauga County, the adult data collected was weighted by age,

gender, race, and income using 2017 Census data. Multiple weightings were created based on this information to account for different types of analyses. For more information on how the weightings were created and applied, see Appendix III.

LIMITATIONS

As with all county assessments, it is important to consider the findings in light of all possible limitations. For example, if any important differences existed between the respondents and the non-respondents regarding the questions asked, this would represent a threat to the external validity of the results (the generalizability of the results to the population of Geauga County). If there were little to no differences between respondents and non-respondents, then this would not be a limitation.

Furthermore, while the survey was mailed to random households in Geauga County, those responding to the survey were more likely to be older. For example, only eight respondents were under the age of 30. While weightings are applied during calculations to help account for this, it still presents a potential limitation (to the extent that the responses from these eight individuals are substantively different from the majority of Geauga County residents under the age of 30).

It is important to note that although several questions were asked using the same wording as the Centers for Disease Control and Prevention (CDC) questionnaire, the data collection method differed. The CDC adult data was collected using a set of questions from the total question bank, and participants were asked the questions over the telephone rather than through a mailed survey.

Lastly, caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Secondary Data Collection Methods

HCNO collected secondary data from multiple sites, including county-level data, whenever possible. HCNO utilized sites such as the Behavioral Risk Factor Surveillance System (BRFSS), numerous CDC sites, U.S. Census data, Healthy People 2020, among other national and local sources. Additionally, Geauga Public Health provided HCNO with secondary data. All primary data collected in this report is from the 2019 Geauga County Health Assessment (CHA). All other data is cited accordingly.

Hospital Utilization Data Collection Methods

HCNO worked with staff from University Hospitals and Cypress Research Group to incorporate county level hospital discharge and utilization data within the community health assessment. The hospital utilization data included within the community health assessment is from January 2017 through December 2017. Data is broken down into gender and age, where applicable.

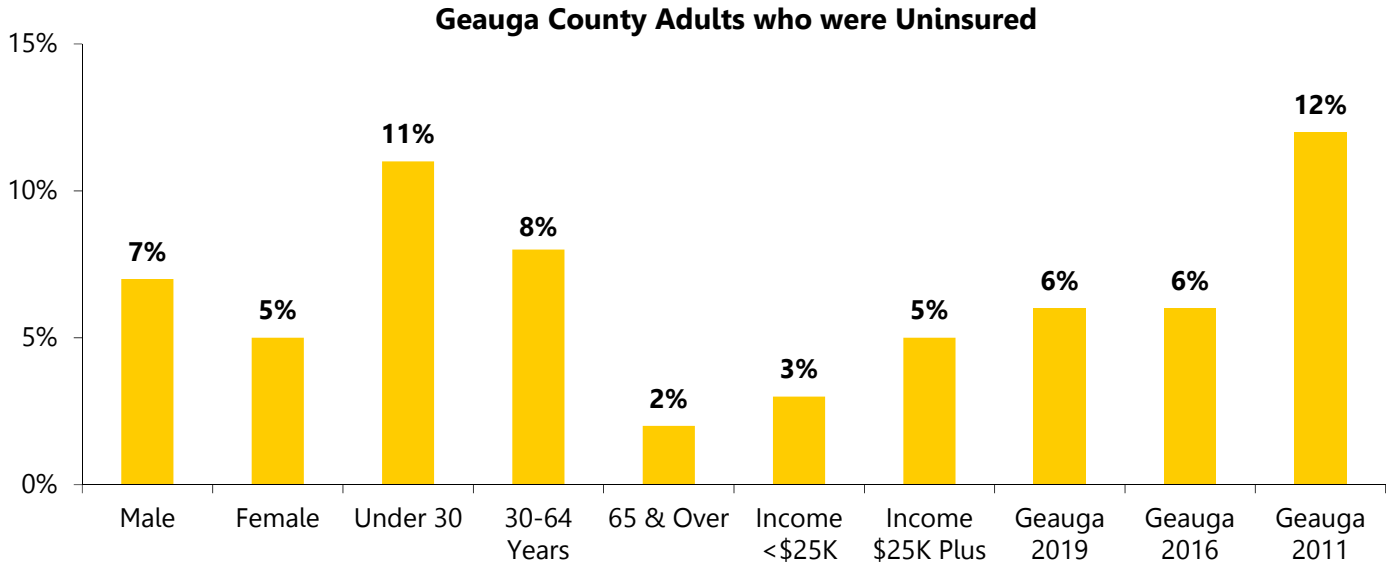
Each hospital provides data to the Ohio Hospitalization Association (OHA) for statewide consolidated reporting. Those data are at the patient level, where patients are de-identified. Each data record represents a single hospital admission; hence, individuals who are hospitalized multiple times are included in the database for each time they are admitted/discharged from the hospital.

The hospital utilization data allows us to track the number of discharges for any Ohio-based acute care hospital over time. The database includes key demographic information (age, gender, race, county of residence) as well as information related to the hospitalization (primary diagnosis, and all secondary diagnoses). The data allowed us to isolate inpatients both in terms of where they were hospitalized (regardless of where they live) and where they live (regardless of where they were hospitalized).

For more information regarding hospital utilization data, see Health Care Access and Utilization.

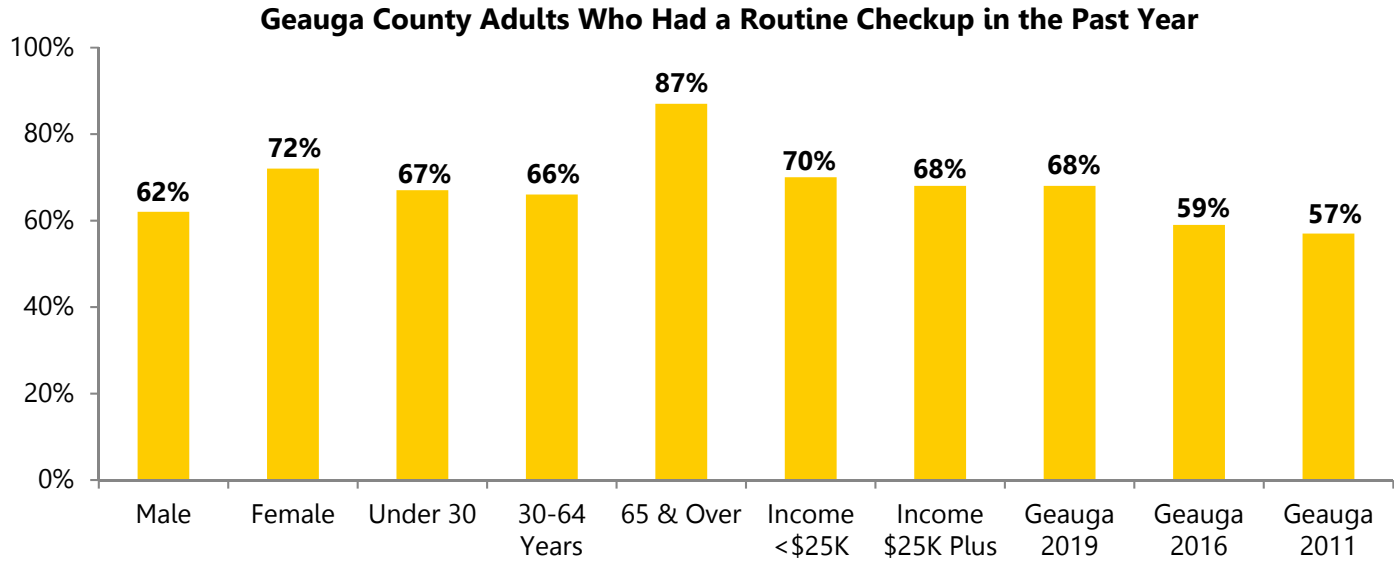
HEALTH CARE COVERAGE

Six percent (6%) of Geauga County adults were without health care coverage. Eight percent (8%) of adults with children did not have health care coverage. The main reason adults gave for being without health care coverage was, they could not afford to pay the insurance premiums (40%).



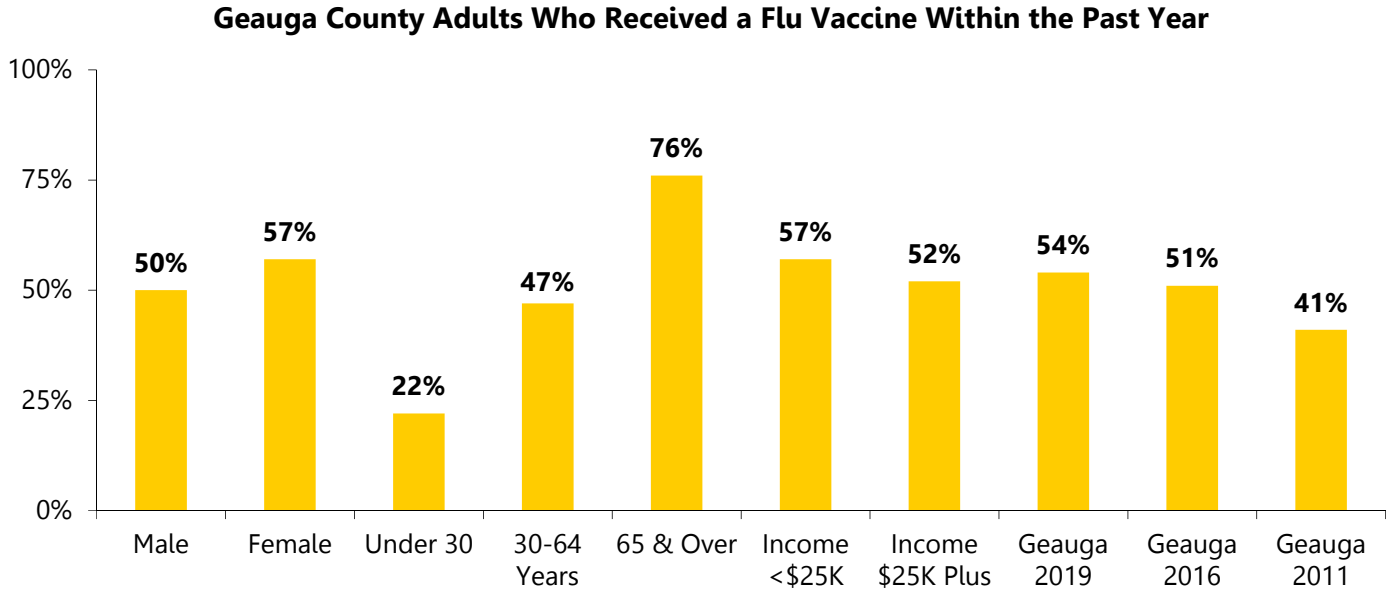
ACCESS AND UTILIZATION

Sixty-eight percent (68%) of Geauga County adults had visited a doctor for a routine checkup in the past year. Seventy-five percent (75%) of adults went outside of Geauga County for health care services in the past year.



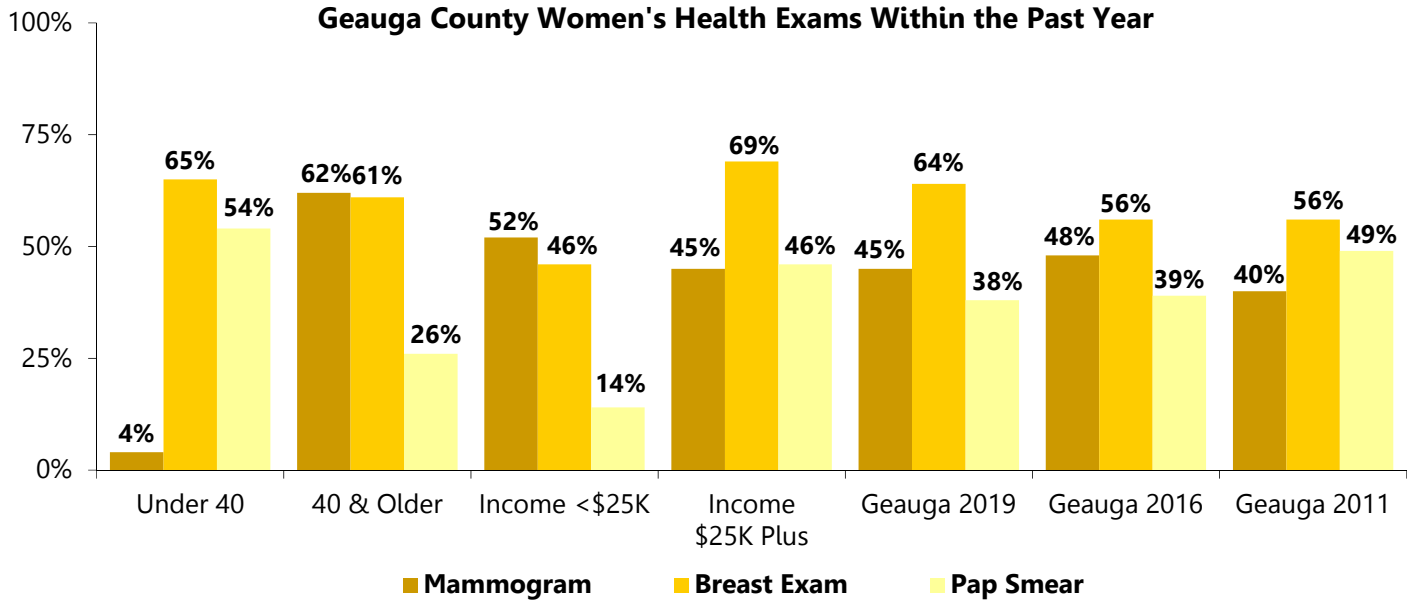
PREVENTIVE MEDICINE

More than half (54%) of Geauga County adults had a flu vaccine during the past 12 months. Seventy-eight percent (78%) of adults over the age of 65 had a pneumonia vaccine at some point in their life. Fifty-eight percent (58%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy within the past five years.



WOMEN'S HEALTH

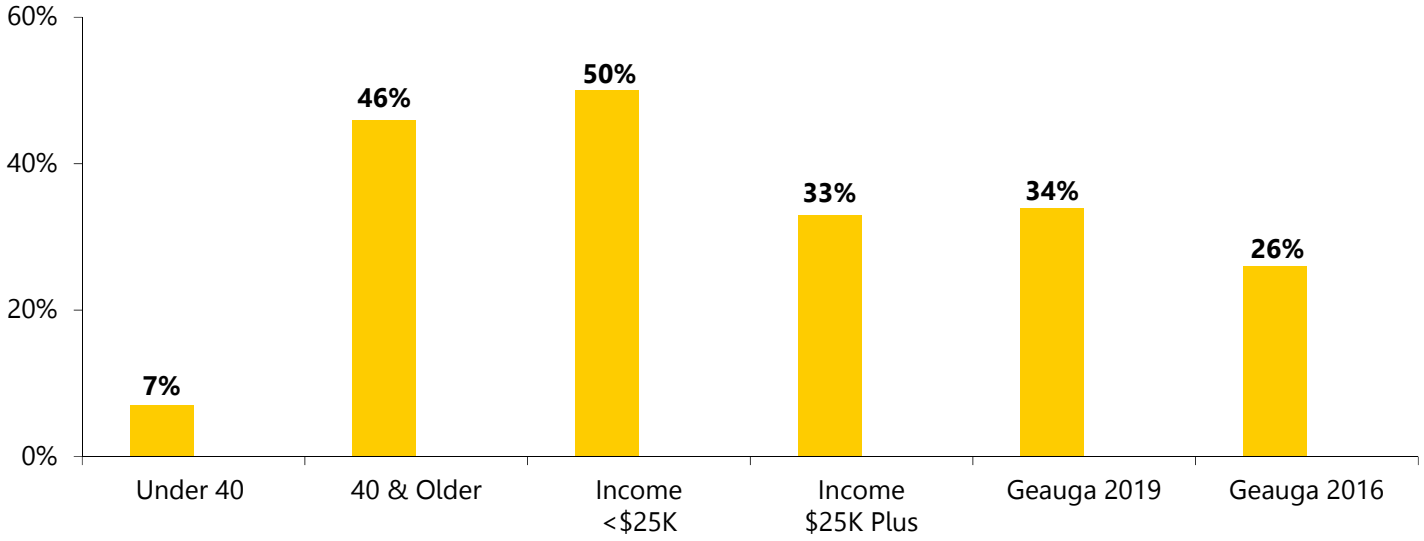
Sixty-two percent (62%) of Geauga County women over the age of 40 reported having a mammogram in the past year. Sixty-four percent (64%) of women had a clinical breast exam and 38% had a Pap smear to detect cancer of the cervix in the past year. Forty-seven percent (47%) of Geauga County women were overweight or obese, 31% had high blood cholesterol, 27% had high blood pressure, and 14% were identified as current smokers, known risk factors for cardiovascular diseases.



MEN'S HEALTH

Over half (53%) of Geauga County males over the age of 50 had a prostate-specific antigen (PSA) test in the past year. Seventy-four percent (74%) of men were overweight or obese, 47% had been diagnosed with high blood cholesterol, 34% had high blood pressure, and 6% were identified as current smokers, known risk factors for cardiovascular diseases.

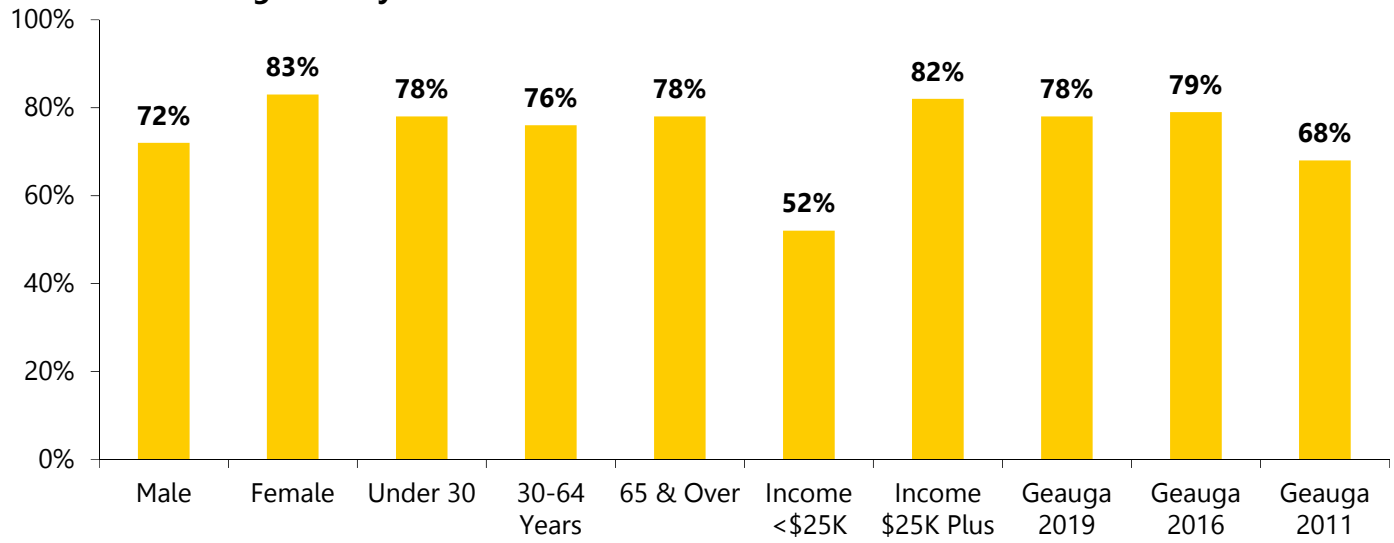
Geauga County Men who had a PSA Test Within the Past Year



ORAL HEALTH

Seventy-eight percent (78%) of Geauga County adults had visited a dentist or dental clinic in the past year. Eighty percent (80%) of Geauga County adults with dental insurance had been to the dentist in the past year, compared to 46% of those without dental insurance.

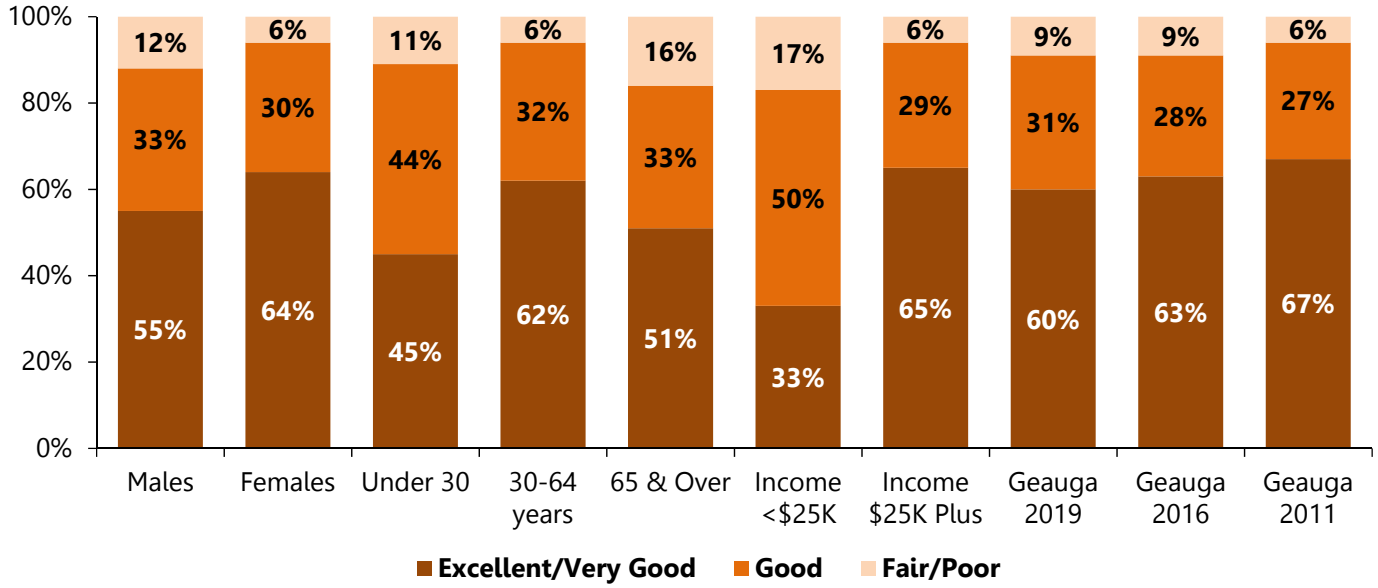
Geauga County Adults Who Visited a Dentist or Dental Clinic in the Past Year



HEALTH STATUS PERCEPTIONS

Three-fifths (60%) of Geauga County adults rated their health status as excellent or very good. Conversely, 9% of adults described their health as fair or poor, increasing to 17% of those with incomes less than $25,000.

Geauga County Adult Health Perceptions*

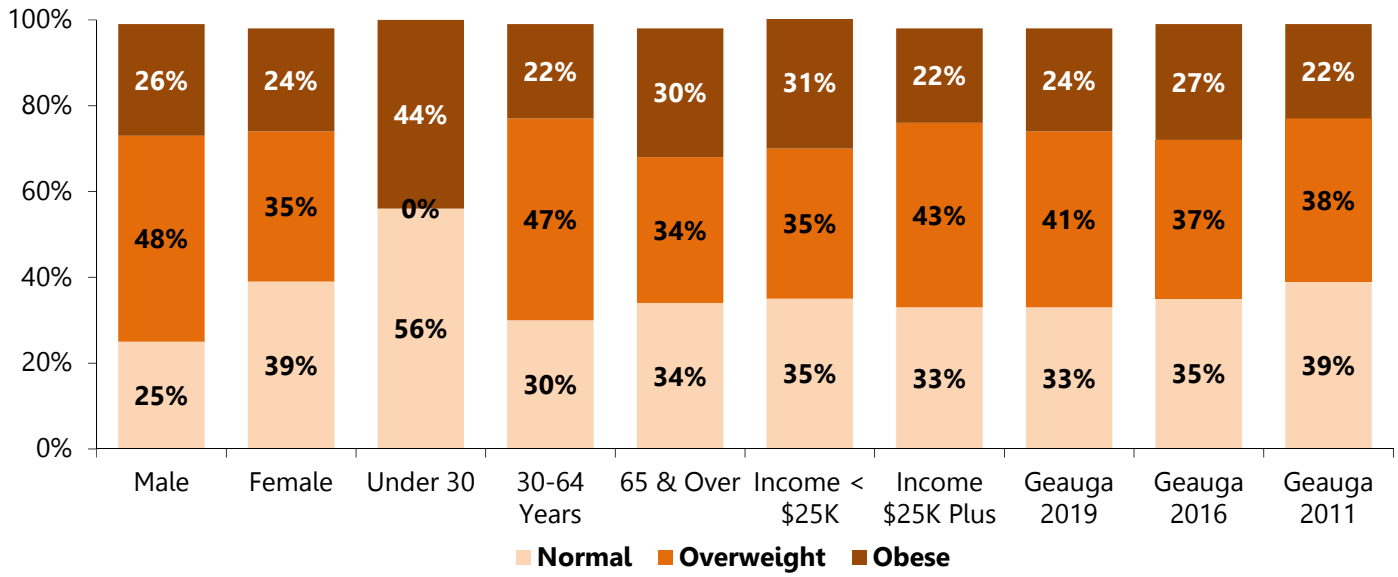


**Respondents were asked: "Would you say that in general your health is excellent, very good, good, fair or poor?"*

WEIGHT STATUS

Sixty-five percent (65%) of Geauga County adults were overweight or obese based on Body Mass Index (BMI). Eighteen percent (18%) of adults were not participating in any physical activity in the past week, including 2% who were unable to exercise.

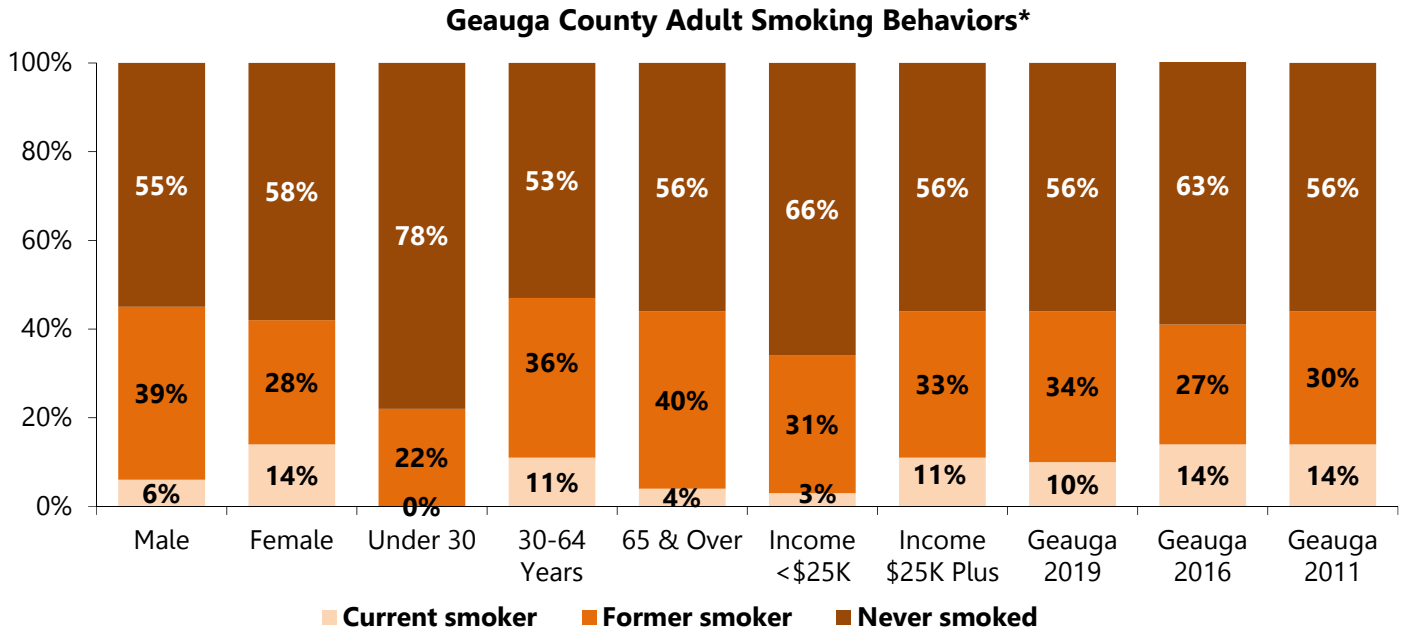
Geauga County Adult BMI Classifications*



**Percentages may not equal 100% due to the exclusion of data for those who were classified as underweight*

TOBACCO USE

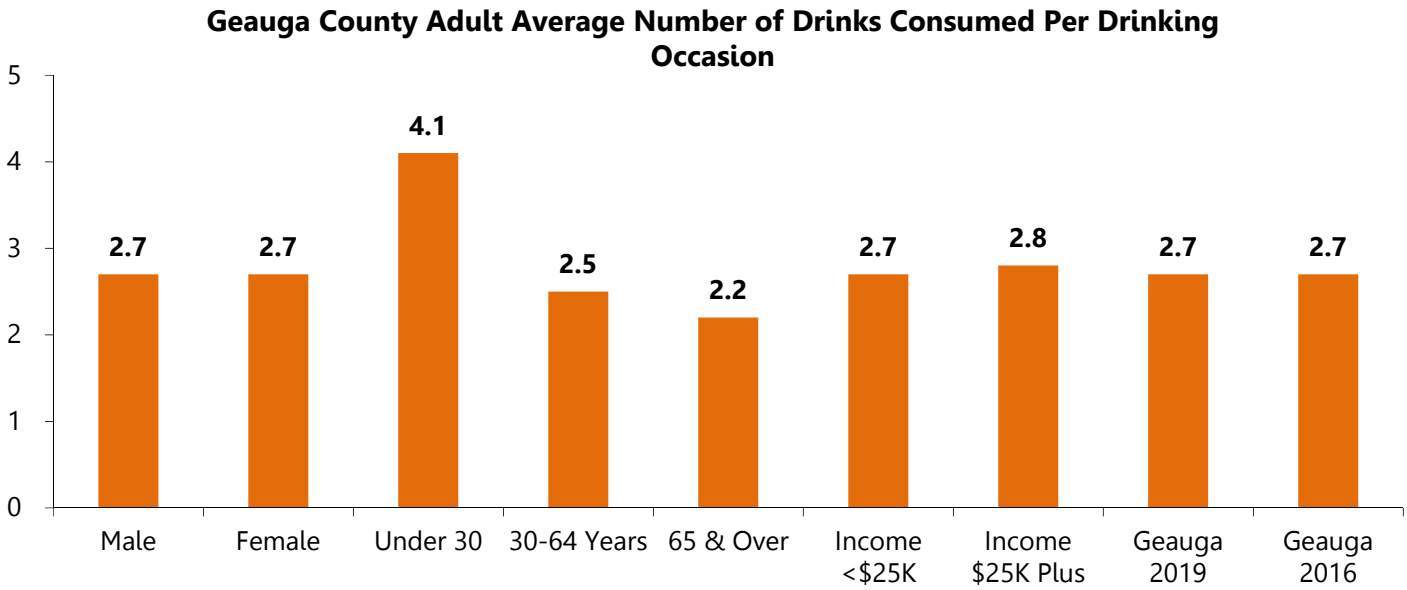
Ten percent (10%) of Geauga County adults were current smokers, and 34% were considered former smokers. *Six* percent (6%) of adults used e-cigarettes in the past year. Twenty-three percent (23%) of adults did not know if e-cigarette vapor was harmful.



**Respondents were asked: "Have you smoked at least 100 cigarettes in your entire life? If yes, do you now smoke cigarettes every day, some days or not at all?"*

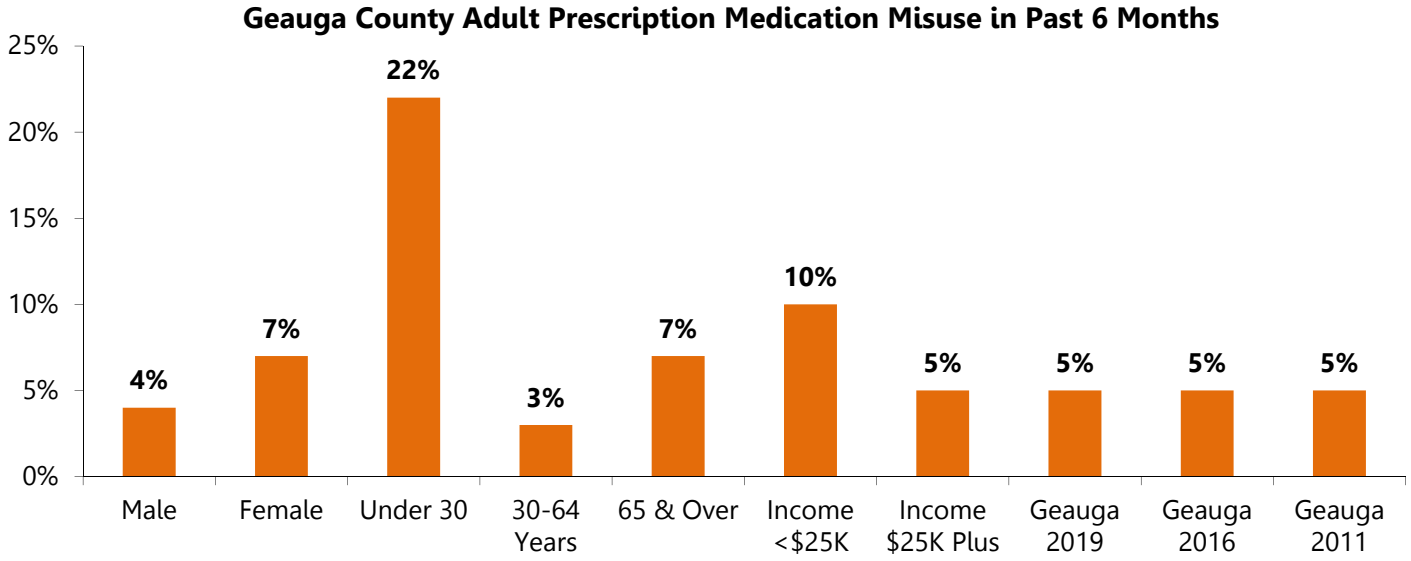
ALCOHOL CONSUMPTION

Seventy-one percent (71%) of Geauga County adults had at least one alcoholic drink in the past month and would be considered current drinkers. Nearly one-quarter (24%) of all adults reported they had five or more alcoholic drinks (for males) or four or more drinks (for females) on an occasion in the last month and would be considered binge drinkers.



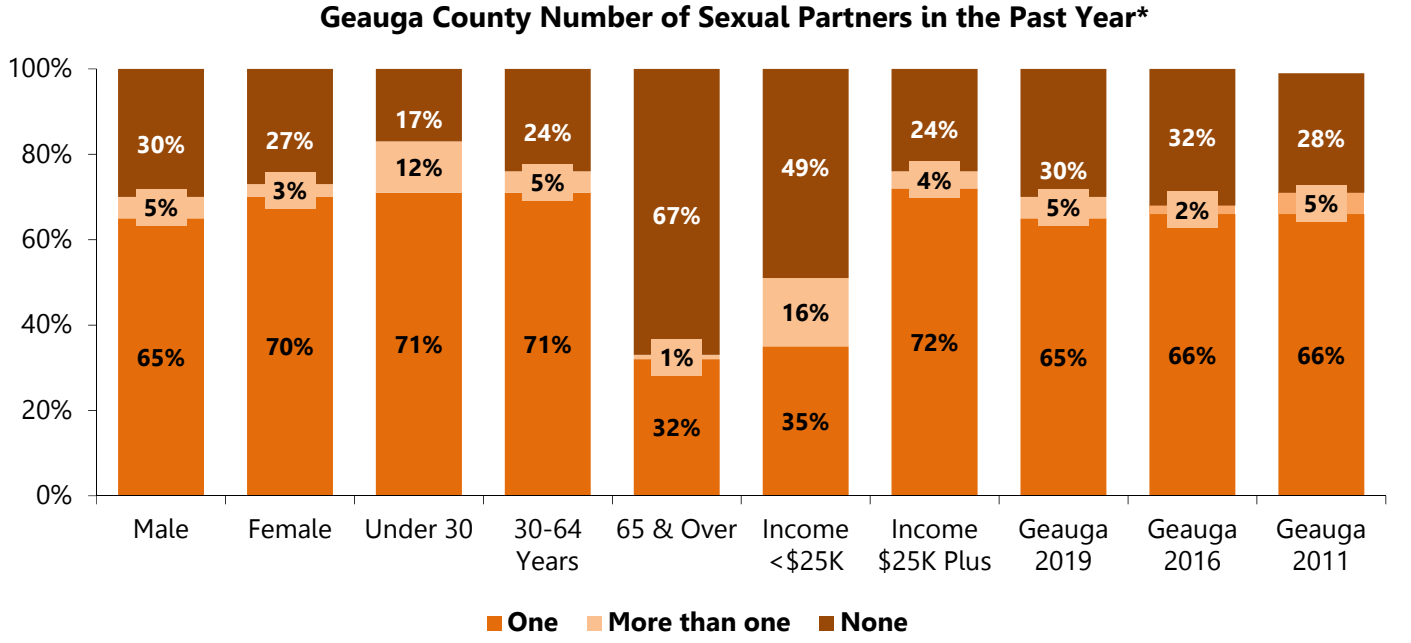
DRUG USE

Four percent (4%) of Geauga County adults had used recreational marijuana or hashish during the past 6 months. Five percent (5%) of adults had used medication not prescribed for them or took more than prescribed to feel good or high and/or more active or alert during the past six months.



SEXUAL BEHAVIOR

Seventy percent (70%) of Geauga County adults had sexual intercourse in the past year. Five percent (5%) of adults had more than one partner. Twenty-eight percent (28%) of adults had been tested for HIV in their lifetime.



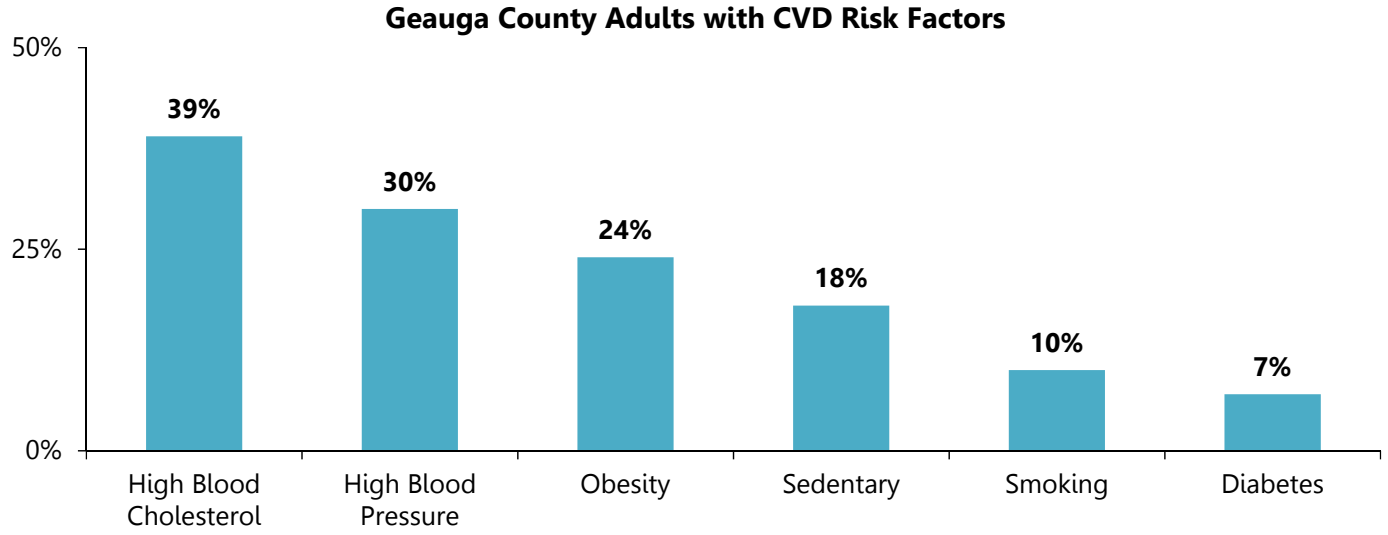
**Respondents were asked: "During the past 12 months, with how many different people have you had sexual intercourse?"*

MENTAL HEALTH

Eighteen percent (18%) of adults had been told they had a depressive disorder including depression, major depression, dysthymia, or minor depression. Three percent (3%) of Geauga County adults considered attempting suicide in the past year.

CARDIOVASCULAR HEALTH

Four percent (4%) of adults had survived a heart attack and 2% had survived a stroke at some time in their life. Almost two-fifths (39%) of Geauga County adults had high blood cholesterol, 30% had high blood pressure, 24% were obese, and 10% were current smokers, four known risk factors for heart disease and stroke.

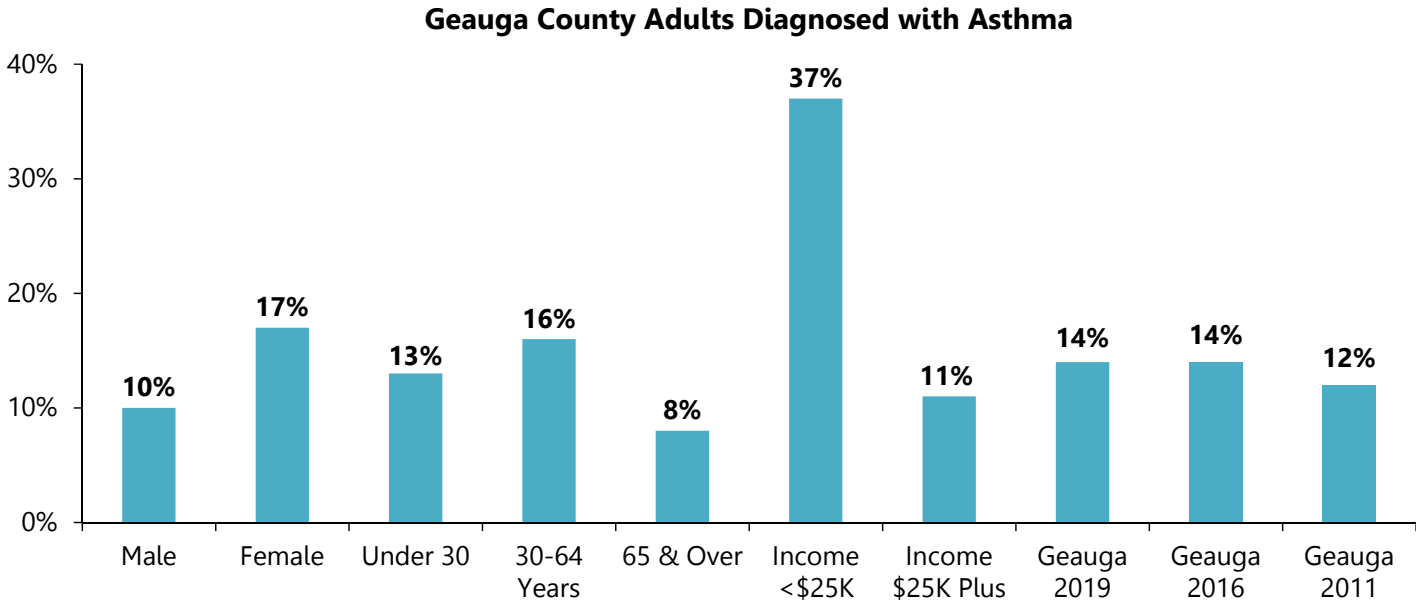


CANCER

Fourteen percent (14%) of Geauga County adults had been diagnosed with cancer at some time in their life, increasing to 26% of those over the age of 65.

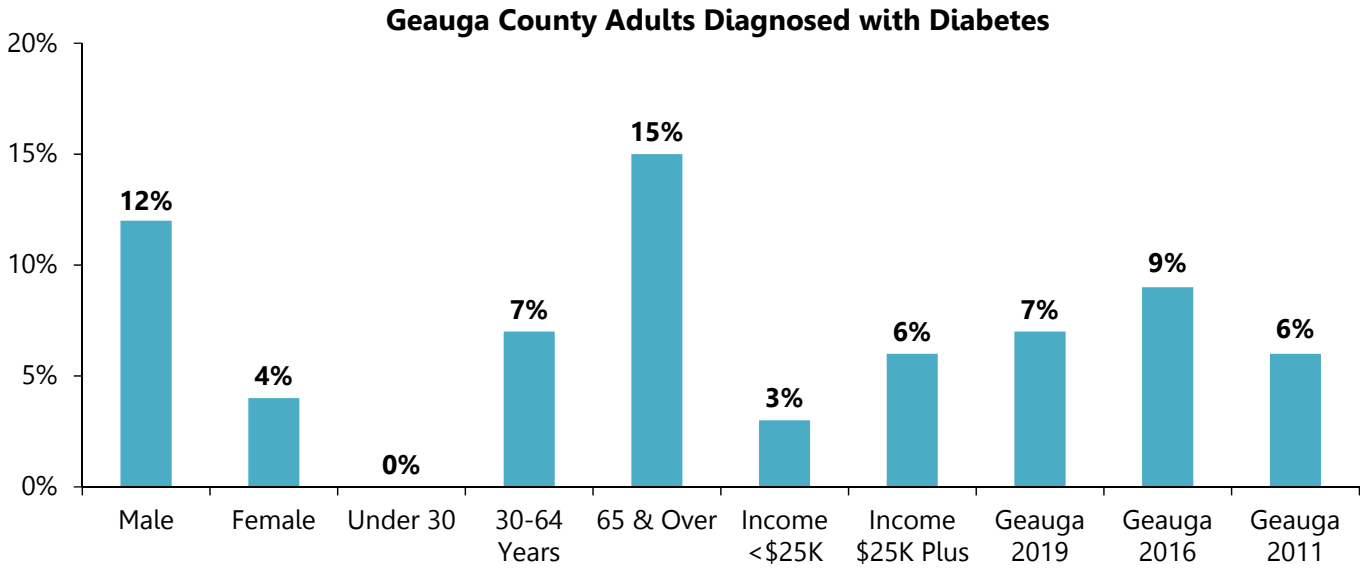
ASTHMA

Fourteen percent (14%) of Geauga County adults had been told by a doctor, nurse, or other health professional that they had asthma, increasing to 37% of those with income less than $25,000.



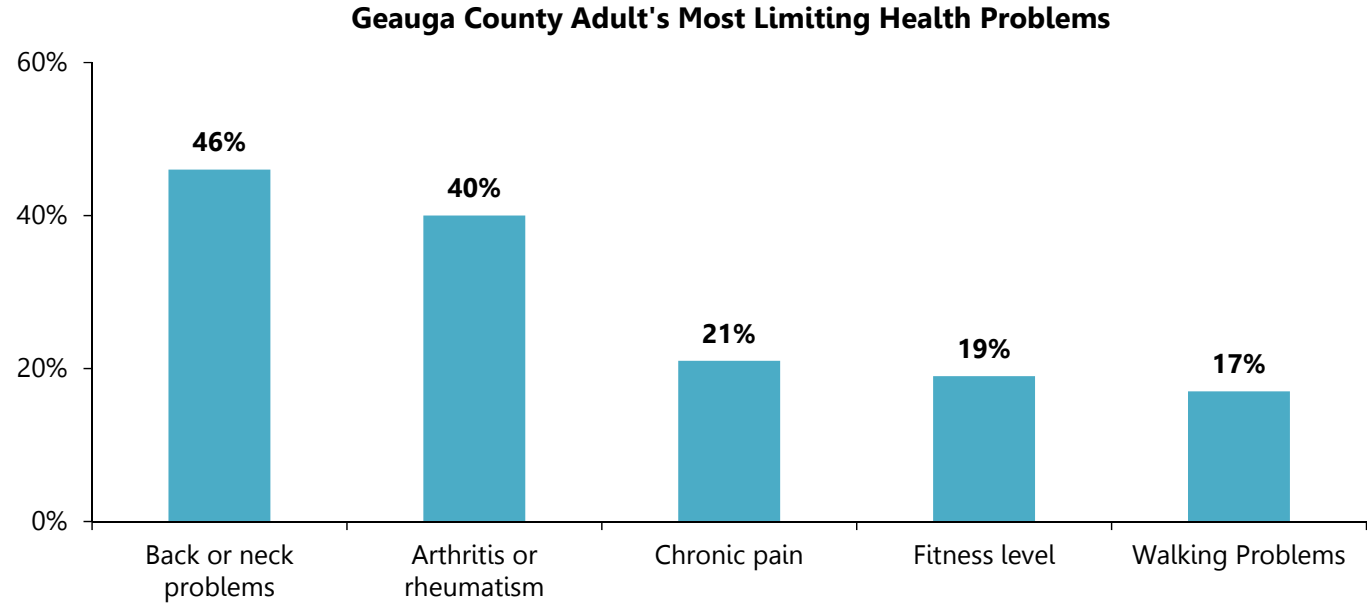
DIABETES

Seven percent (7%) of Geauga County adults had been diagnosed with diabetes, increasing to 15% of those over the age of 65.



QUALITY OF LIFE

Twenty percent (20%) of Geauga County adults were limited in some way because of a physical, mental, or emotional problem. The most limiting health problems were back or neck problems (46%); arthritis/rheumatism (40%); chronic pain (21%); and fitness level (19%). Twelve percent (12% of adults were limited due to stress, depression, anxiety, or emotional problems.

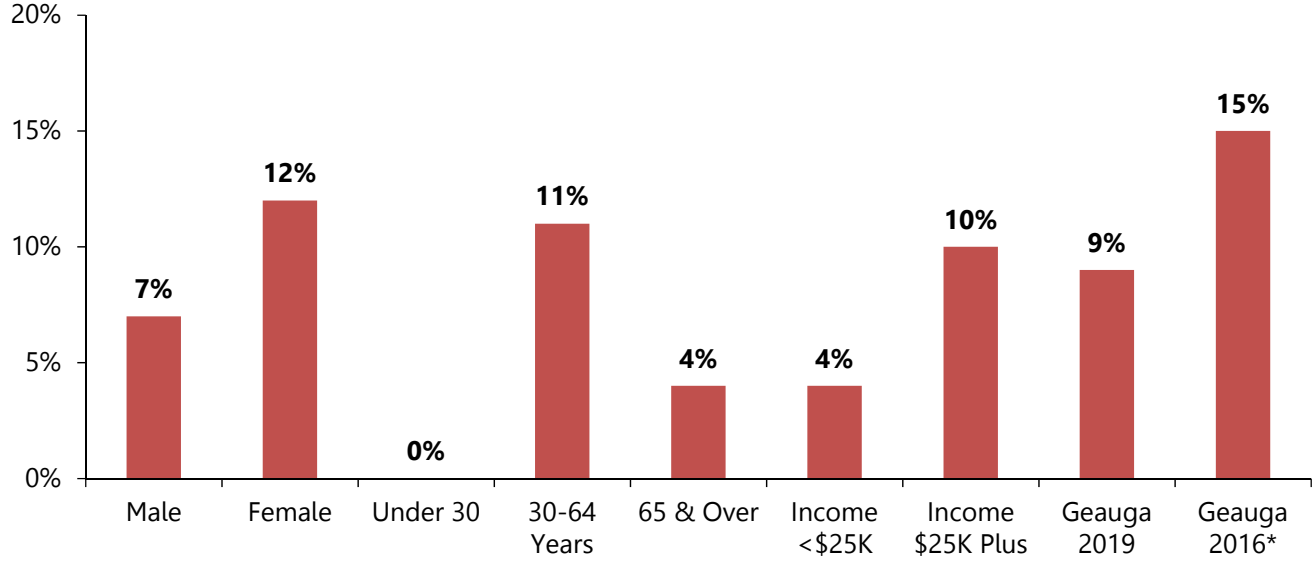


Data Summary | Social Conditions

SOCIAL DETERMINANTS OF HEALTH

Nine percent (9%) of Geauga County adults had four or more Adverse Childhood Experiences (ACEs) in their lifetime. Seven percent (7%) of adults had experienced at least one issue related to transportation in the past year. Fifty-six percent (56%) of Geauga County adults kept a firearm in or around their home. Four percent (4%) of adults reported they were unlocked and loaded.

Geauga County Adults Who Experienced 4 or more ACEs in their Lifetime



**The 2016 Geauga County Health Assessment reported those adults who had experienced 3 or more ACEs in their lifeime.*

ENVIRONMENTAL HEALTH

The top three environmental health issues for Geauga County adults that threatened their health in the past year were insects (9%), rodents (6%), and mold (6%). More than three-fifths (64%) of adults had a 3-day supply of nonperishable food for everyone in the household in preparation for a disaster.

PARENTING

Forty-two percent (42%) of parents discussed dating and relationships, and 40% discussed the negative effects of alcohol, tobacco, illegal drugs, or misusing prescription drugs with their 12-to-17 year-old in the past year.

Trend Summary

Adult Variables	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Healthcare Coverage, Access, and Utilization					
Uninsured	12%	6%	6%	8%	11%
Visited a doctor for a routine checkup (in the past 12 months)	57%	59%	68%	72%	70%
Had one or more persons they thought of as their personal health care provider	86%	89%	89%	81%	77%
Preventive Medicine					
Ever had a pneumonia vaccination (age 65 and older)	N/A	81%	78%	76%	75%
Had a flu shot within the past year (age 65 and older)	41%	83%	76%	63%	60%
Ever had a shingles or zoster vaccine	N/A	18%	27%	29%	29%
Had a colonoscopy or sigmoidoscopy within the past 5 years (age 50 and older)	67%	54%	58%	72%*	74%*
Women's Health					
Had a clinical breast exam in the past two years (age 40 and older)	N/A	75%	71%	N/A	N/A
Had a mammogram within the past two years (age 40 and older)	77%	78%	79%	74%*	72%*
Had a pap test in the past three years (ages 21-65)	N/A	69%	80%	82%*	80%*
Men's Health					
Had a PSA test within the past two years (age 40 and older)	N/A	56%	54%	39%*	40%*
Oral Health					
Visited a dentist or dental clinic (within the past year)	68%	79%	78%	68%*	66%*
Visited a dentist or dental clinic (5 or more years ago)	10%	6%	7%	11%*	10%*
Health Status Perceptions					
Rated general health as good, very good, or excellent	94%	91%	91%	81%	83%
Rated general health as excellent or very good	67%	63%	60%	49%	51%
Rated general health as fair or poor	6%	9%	9%	19%	18%
Rated physical health as not good on four or more days (in the past 30 days)	16%	19%	23%	22%*	22%*
Average number of days that physical health not good (in the past 30 days) (County Health Rankings)	N/A	3.8	3.3	4.0¥	3.7¥
Rated mental health as not good on four or more days (in the past 30 days)	18%	28%	25%	24%*	23%*
Average number of days that mental health not good (in the past 30 days) (County Health Rankings)	N/A	4.8	3.6	4.3¥	3.8¥
Poor physical or mental health kept them from doing usual activities, such as self-care, work, or recreation (on at least one day during the past 30 days)	18%	21%	22%	22%*	22%*

N/A - Not Available
**2016 BRFSS*
¥2016 BRFSS data as compiled by 2018 County Health Rankings
Indicates alignment with Ohio State Health Assessment (SHA)

Adult Variables	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Weight Status					
Obese (includes severely and morbidly obese, BMI of 30.0 and above)	22%	27%	24%	34%	32%
Overweight (BMI of 25.0 – 29.9)	38%	37%	41%	34%	35%
Normal weight (BMI of 18.5 – 24.9)	39%	35%	33%	30%	32%
Tobacco Use					
Current smoker (currently smoke some or all days)	14%	10%	10%	21%	17%
Former smoker (smoked 100 cigarettes in lifetime & now do not smoke)	30%	27%	34%	24%	25%
Tried to quit smoking (on at least one day in the past year)	42%	51%	41%	N/A	N/A
Current e-cigarette user (vaped on some or all days)	N/A	N/A	6%	5%	5%
Former e-cigarette user	N/A	N/A	12%	19%	16%
Alcohol Consumption					
Current drinker (drank alcohol at least once in the past month)	65%	69%	71%	54%	55%
Binge drinker (defined as consuming more than four [women] or five [men] alcoholic beverages on a single occasion in the past 30 days)	18%	26%	24%	19%	17%
Drove after having perhaps too much alcohol to drink	6%	5%	5%	4%**	4%**
Drug Use					
Adults who used recreational marijuana or hashish in the past 6 months	5%	5%	4%	N/A	N/A
Adults who misused prescription medication in the past 6 months	5%	5%	5%	N/A	N/A
Sexual Behavior					
Had more than one sexual partner in past year	5%	2%	5%	N/A	N/A
Mental Health					
Considered attempting suicide in the past year	2%	3%	3%	N/A	N/A
Attempted suicide in the past year	1%	0%	1%	N/A	N/A
Cardiovascular Health					
Ever diagnosed with angina or coronary heart disease	2%	3%	3%	5%	4%
Ever diagnosed with a heart attack or myocardial infarction	2%	4%	4%	6%	4%
Ever diagnosed with a stroke	2%	2%	2%	4%	3%
Had been told they had high blood pressure	30%	27%	30%	35%	32%
Had been told their blood cholesterol was high	36%	36%	39%	33%	33%
Had their blood cholesterol checked within last five years	82%	86%	84%	85%	86%
Arthritis, Asthma and Diabetes					
Had ever been told they have asthma	12%	14%	14%	14%	14%
Ever been told by a doctor they have diabetes (not pregnancy-related)	6%	9%	7%	11%	11%
Ever been diagnosed with pregnancy-related diabetes	1%	N/A	<1%	1%	1%
Even been diagnosed with pre-diabetes or borderline diabetes	N/A	5%	5%	2%	2%

N/A - Not Available
***2015 BRFSS Data*
Indicates alignment with Ohio SHA

Evaluation of Impact

University Hospitals Geauga Medical Center Implementation Strategy: Impact Assessment
UH Geauga Medical Center is a community-based hospital. It is located in Chardon, Ohio, within Geauga County. The county is a rural community, located east of Cuyahoga County. It has both agricultural and industrial economic sectors. It has a substantial Amish community and a fair amount of socioeconomic diversity among its resident households.

UH Geauga Medical Center is a full-service acute care hospital, with an emergency department, a full array of surgical services, full imaging services, and a birthing center.

The last assessment conducted by UH Geauga Medical Center was adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019, while simultaneously conducting the 2019 collaborative CHNA with Geauga Public Health. This one-year consecutive process is atypical, in that there is usually a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019. Upon review of the 2018 Community Health Needs Assessment, hospital leadership for UH Geauga Medical Center isolated three top priority community health needs in alignment with the Geauga County Community Health Assessment:

1. Mental Health and Addiction
2. Chronic Disease
3. Maternal and Infant Health

In the first two quarters of 2019, a total of 30 individuals were trained in opioid overdose response strategies. In that same time period, 392 people received various wellness screenings, including blood pressure, non-fasting cholesterol and blood sugar, and hernia screenings. These screenings took place at 66 events throughout Geauga County. Additionally, 200 chronic disease prevention classes were held between January and June 2019.

As it pertains to maternal and child health, the goal is to increase the number of employers throughout the county who establish breastfeeding support polices. This initiative is in the early stages, and as of July 2019, no employers in Geauga County had established such policies, but several employers were developing them.

This builds upon its previous strategies to address **1) lack of connection to treatment for those with mental health/substance abuse issues, and 2) underutilization of health services focused on chronic disease**. Within those areas, in consideration of the hospital's expertise and its being a community-based hospital, the following goals were established:

- Increase the number of individuals seeking treatment for substance abuse or mental health issues in the local community
- Increase access to care to slow disease progression

With these goals in-hand, action plans were created to lend the hospitals' staff expertise and resources to combat each community health issue. Below we outline what actions were taken and provide an assessment of the impact of those actions.

1) Substance Abuse/Mental Health Treatment

Increase the connections to treatment for individuals seeking it for substance abuse or mental health issues in the local community

a) Increase access to mental health treatment for 750 patients per year.
The hospital expanded the capacity of its Behavioral Health Unit along with the types of services it provides. In 2018, a total of 806 patients were admitted to the Behavioral Health Unit (at least 189 per quarter). This exceeded the hospital's initial goal of 750.

b) Improve access to care for 200 patients with the addition of a psychiatrist

The community added a psychiatrist, and the hospital was developing its referral protocol in 2018. As of the end of 2018, only 9 hospital patients were referred to the psychiatrist for follow-up care, but this is expected to grow in 2019 and beyond.

c) Improve access to care for 360 patients via the launch of the medical support program

The medical support program is designed to provide safe, medically-controlled detoxification for substance abuse patients. In 2018, a total of 53 patients received this intervention, short of the hospital's goal of 360. However, the number of patients receiving this care grew each quarter in 2018 and is expected to reach greater use in 2019.

d) Increase awareness of resources and knowledge regarding substance abuse and mental health disorders for 1000 of community members

Underutilization of available services for addiction and/or mental health issues is often a function of a lack of awareness for services, especially after a period of a true shortage of the availability of services. UH Geauga Medical Center staff continued its aggressive outreach to community members, focusing heavily on the senior citizen population, which is prone to depression and anxiety issues. A total of 2,032 community members participated in health education sessions geared towards mental health and addiction.

e) Improve access to care for high-risk patients by using OARRS to identify, educate and connect patients to medical support

The OARRS (Ohio Automated Rx Reporting System) facilitates the identification of community members who are being over-prescribed addictive medications. The OARRS system was used to 'flag' patients seeking medications for their addictions who could benefit from connections to the medical support or other addiction services. In 2018, a total of 46 people were identified as potential beneficiaries of addiction treatment and were referred to physicians who can provide medical assistance with their addictions. In addition, eight people were referred to pain management specialists in the community who can provide alternative approaches outside of addictive substances use.

2. **Improve use of health services focused on chronic disease**

a) Increase awareness of available resources through community outreach, specifically with the Amish population

About one-in-four Geauga County residents are Amish. They have traditionally not utilized preventative and primary care services of the mainstream healthcare system. Yet, many suffer from chronic diseases. To increase awareness and build trust between healthcare providers and the Amish community, UH Geauga Medical Center dedicated a provider to continually reach out to the Amish community and build a bridge to the mainstream medical community. A deeper understanding of the cultural norms and expectations of the Amish has resulted. This liaison acts as a 'point person' for members of the Amish community, as many are accessing the mainstream healthcare system for the first time.

The community outreach efforts, with a stronger effort within the Amish community, resulted in touchpoints for 32,120 community members (about a third of all county residents). This very widespread presence of the medical community outside of the hospital walls has built goodwill and a better understanding of services available within the county to help combat disease. Of those reached, 2,030 were members of the Amish community.

b) Improve health literacy regarding connecting with the appropriate physician or health care services

Outreach efforts resulted in a total of 4,184 in-bound requests for connections to community- or health-care services.

c) Increase the number of appointments that the concierge services schedules by 15%: The concierge services are designed to reduce barriers to the receipt of care for those with complex medical needs or with specific issues which decrease access to care. The hospital saw more than a 15% increase in the use of this service resulting in appointments for care in 2018. A total of 4,119 appointments were made.

Healthcare Access: Healthcare Coverage

Key Findings

Six percent (6%) of Geauga County adults were without healthcare coverage. Eight percent (8%) of adults with children did not have healthcare coverage. The main reason adults gave for being without healthcare coverage was they could not afford to pay the insurance premiums (40%).

4,072 Geauga County adults were uninsured.

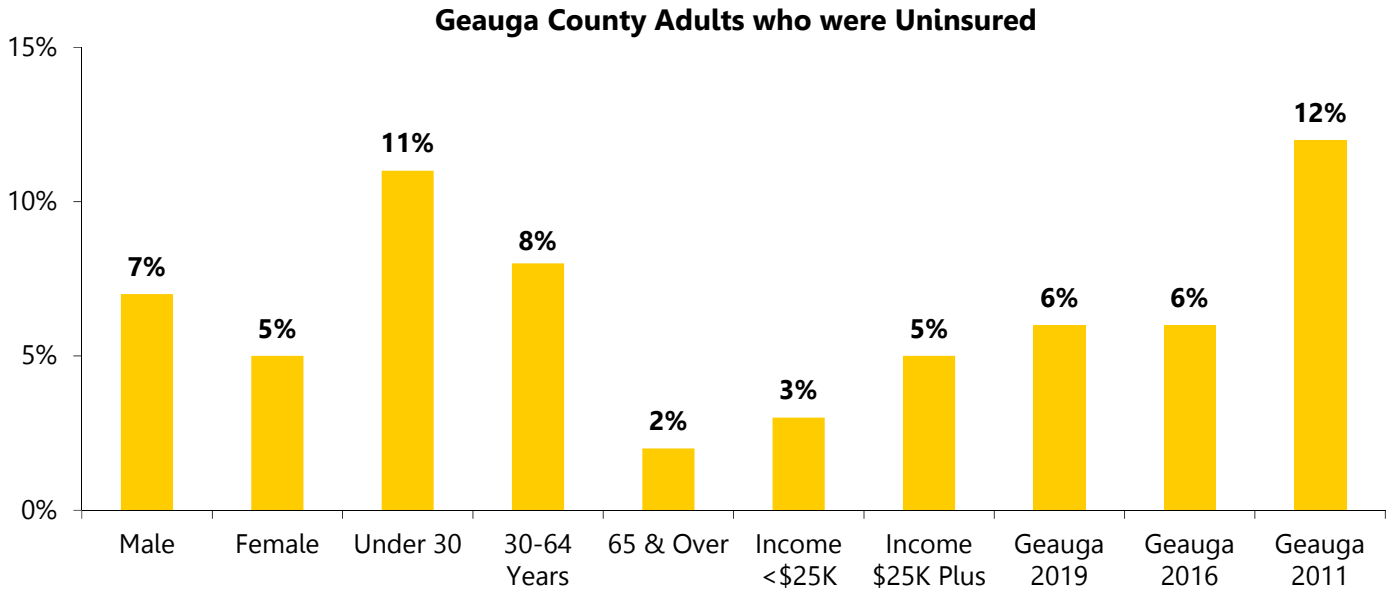
Health Coverage

- In 2019, 94% Geauga County adults had healthcare coverage, while 6% of adults were uninsured.
- Eight percent (8%) of adults with children did not have healthcare coverage, compared to 6% of those who did not have children living in their household.
- Adults in Geauga County used the following types of healthcare coverage:
  - Employer (43%)
  - Medicare (24%)
  - Someone else's employer (20%)
  - Self-paid plan (5%)
  - Medicaid or medical assistance (2%)
  - Multiple, including private sources (2%)
  - Health Insurance Marketplace (2%)
  - Multiple, including government sources (1%)
  - Military, CHAMPUS, TriCare, CHAMPVA, or the VA (1%)
- Geauga County adult healthcare coverage included the following:
  - Medical (95%)
  - Prescription coverage (91%)
  - Immunizations (84%)
  - Preventive health (80%)
  - Outpatient therapy (79%)
  - Mental health (66%)
  - Dental (64%)
  - Vision/eyeglasses (57%)
  - Durable medical equipment (43%)
  - Alcohol and drug treatment (37%)
  - Skilled nursing/assisted living (33%)
  - In-home care (31%)
  - Hospice (27%)
- Adults had the following issues regarding their healthcare coverage:
  - Cost (36%)
  - Opted out of certain coverage because they could not afford it (9%)
  - Service not deemed medically necessary (7%)
  - Limited visits (6%)
  - Could not understand their insurance plan (6%)
  - Provider is no longer covered (6%)
  - Working with their insurance company (6%)
  - Opted out of certain coverage because they did not need it (4%)
  - Service is no longer covered (3%)
  - Pre-existing conditions (1%)

- The top 3 reasons uninsured adults gave for being without healthcare coverage were:
  - They could not afford to pay the insurance premiums (40%)
  - They lost their job or changed employers (28%)
  - Other reasons (23%)

  Note: Percentages do not equal 100% because respondents could select more than one reason

The following graph shows the percentage of Geauga County adults who were uninsured. An example of how to interpret the information in the graph includes: 6% of all Geauga County adults were uninsured, including 7% of males and 5% of females.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Uninsured	12%	6%	6%	8%	11%

Healthy People 2020
Access to Health Services (AHS)

Objective	Geauga County 2019	Ohio 2017	U.S. 2016*	Healthy People 2020 Target
AHS-1.1: Persons under age of 65 years with health insurance	67% age 20-24 96% age 25-34 90% age 35-44 94% age 45-54 88% age 55-64	87% age 18-24 90% age 25-34 90% age 35-44 91% age 45-54 93% age 55-64	85% age 18-24 84% age 25-34 87% age 35-44 90% age 45-54 93% age 55-64	100%

**U.S. baseline is age-adjusted to the 2000 population standard.*
(Sources: Healthy People 2020 Objectives, 2016 BRFSS, 2017 BRFSS, 2019 Geauga County Health Assessment)
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Hospital Discharges for Patients without Medical Insurance, 2017*

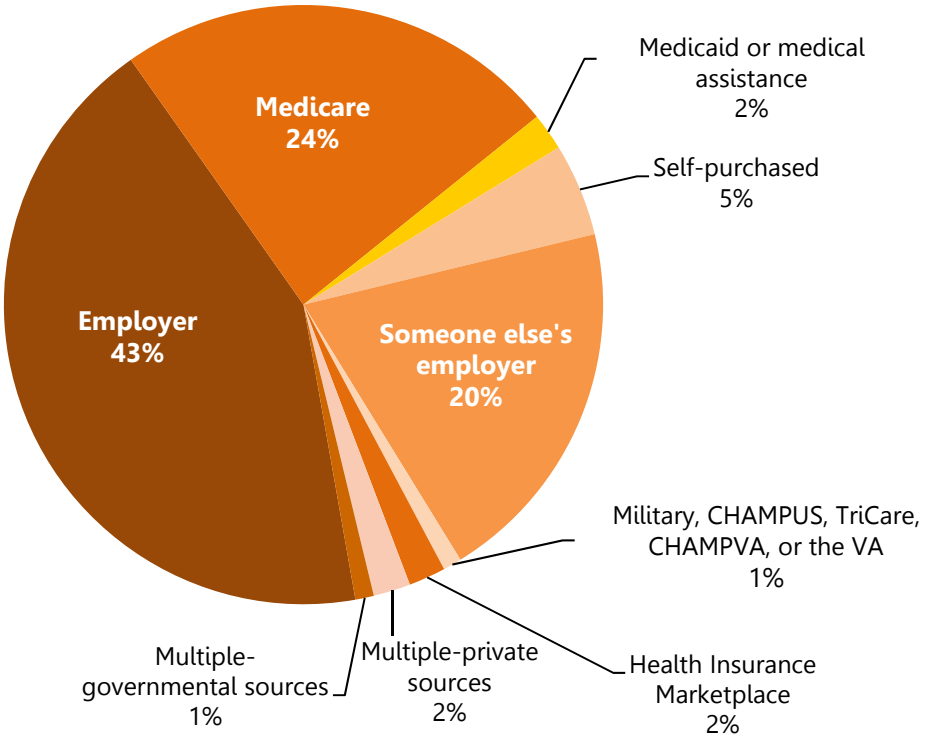
- Of the 3,702 inpatients for UH Geauga Medical Center in 2017, 15.9% of those under 18 were "self-pay," as were 6.7% of those aged 18-64. Very few (0.2%) of seniors did not utilize health insurance to cover their hospital stay. Note that none of the inpatients were classified as 'charity care' in 2017; instead, all were classified as 'self-pay.'

	Patients Age 0-17 Years	Patients Age 18-64 Years	Patients Age 65 Years and Older
Patients without Medical Insurance at Discharge	64 of 401 (15.9%)	95 of 1,421 (6.7%)	4 of 1,880 (.2%)

**Patients who were categorized as either 'self-pay' or 'charity care.'*
(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)

The following chart identifies sources of health coverage for Geauga County adults.

Source of Health Coverage for Geauga County Adults



The following table shows what is included in Geauga County adults' insurance coverage.

Health Coverage Includes:	Yes	No	Don't Know
Medical	95%	1%	4%
Prescription coverage	91%	4%	5%
Immunizations	84%	4%	12%
Preventive health	80%	3%	17%
Outpatient therapy	79%	2%	19%
Mental health	66%	4%	30%
Dental	64%	31%	5%
Vision/eye glasses	57%	37%	6%
Durable medical equipment	43%	5%	52%
Alcohol and Drug Treatment	37%	6%	57%
Skilled nursing/assisted living	33%	7%	60%
In-home care	31%	7%	62%
Hospice	27%	5%	68%
Transportation	12%	19%	69%

Healthcare Access: Access and Utilization

Key Findings

Sixty-eight percent (68%) of Geauga County adults had visited a doctor for a routine checkup in the past year. Seventy-five percent (75%) of adults went outside of Geauga County for healthcare services in the past year.

Healthcare Access

- More than two-thirds (68%) of Geauga County adults visited a doctor for a routine checkup in the past year, increasing to 87% of those over the age of 65.

- Fifty-one percent (51%) of adults reported they had one person they thought of as their personal doctor or healthcare provider. Over one-third (38%) of adults had more than one person they thought of as their personal doctor or healthcare provider, and 11% did not have one at all.

- Sixty-seven percent (67%) of Geauga County adults received medical care in the past 12 months. Reasons for not receiving medical care in the past 12 months included the following:
  - No need to go (19%)
  - Cost/no insurance (7%)
  - Inconvenient appointment times (2%)
  - Too long of a wait for an appointment (1%)
  - No child care (1%)
  - Office was not open when they could get there (1%)
  - Discrimination (<1%)
  - Other problems (3%)

- Geauga County adults had not gotten any of the following recommended care due to cost:
  - Lab testing (6%)
  - Medications (5%)
  - Colonoscopy (5%)
  - Mammogram (4%)
  - Pap smear (4%)
  - Weight loss program (3%)
  - Surgery (3%)
  - Prostate-Specific Antigen (PSA) Test (2%)
  - Mental health services (1%)
  - Immunizations (1%)
  - Smoking cessation (1%)
  - Family planning services (1%)
  - Alcohol/drug treatment (<1%)
  - Other (5%)

- Seventy-five percent (75%) of adults went outside of Geauga County for the following healthcare services in the past year:
  - Primary care (42%)
  - Specialty care (35%)
  - Dental services (35%)
  - Dermatological care (18%)
  - Obstetrics/gynecology (12%)
  - Orthopedic care (12%)
  - Ear, nose, throat care (11%)
  - Female health services (9%)
  - Mental health care/counseling services (8%)
  - Pediatric care (8%)
  - Cardiac care (7%)
  - Podiatry care (7%)
  - Cancer care (5%)
  - Pediatric therapies (4%)
  - Smoking cessation (1%)
  - Addiction services (1%)
  - Skilled nursing rehabilitation (1%)
  - Hospice/palliative care (1%)
  - Bariatric care (1%)
  - Other services (9%)

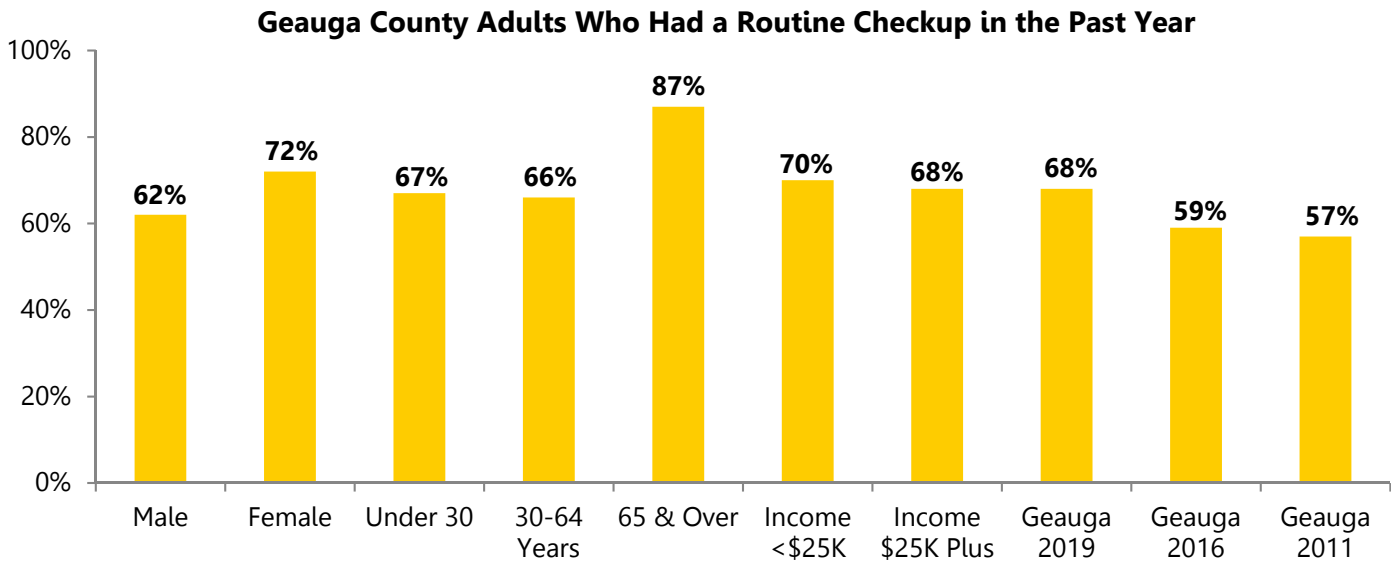
- Adults traveled the following distances for their healthcare needs:
  - Less than 20 miles (77%)
  - 20 to 40 miles (21%)
  - 41 to 60 miles (1%)
  - More than 60 miles (1%)

- Adults sought the following when they were sick or needed advice about their health:
  - A doctor/healthcare provider's office (83%)
  - Urgent care center (4%)
  - The Internet (3%)
  - In-store health clinic (2%)
  - Multiple places, including a doctor's office (1%)
  - Chiropractor (1%)
  - Department of Veteran's Affairs (VA) (1%)
  - Family and friends (1%)
  - Alternative therapies (<1%)
  - A hospital emergency room (<1%)
  - Did not have a usual place for healthcare services (4%)

- Just over one-fifth (21%) of adults did not get prescriptions from their doctor filled in the past year. Of those who did not get their prescriptions filled, they gave the following reasons:
  - They did not think they needed it (32%)
  - Too expensive (24%)
  - They did not have insurance (11%)
  - Side effects (9%)
  - There was no generic equivalent of what was prescribed (9%)
  - They stretched their current prescription by taking less than prescribed (4%)
  - They were taking too many medications (4%)
  - Fear of addiction (4%)
  - Transportation (1%)
  - Other (18%)

- Three percent (3%) of adults had their prescriptions filled by prescription assistance and 30% of adults had no prescriptions to be filled.

The following graph shows the percentage of Geauga County adults who had a routine checkup in the past year. An example of how to interpret the information in the graph includes: 68% of all adults had a routine check-up in the past year, including 62% of males and 72% of females.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Visited a doctor for a routine checkup (in the past 12 months)	57%	59%	68%	72%	70%
Had one or more persons they thought of as their personal healthcare provider	86%	89%	89%	81%	77%

Trend of Hospital Discharges for Geauga County Residents, 2011- 2017

- The number of inpatient hospitalizations (acute care) for Geauga County residents (within any Ohio hospital) decreased by 2.2% from 2011 to 2017.

2011	2012	2013	2016	2017
9,750	10,045	9,379	9,057	9,533

(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)

Number of Hospital Discharges for Geauga County Residents, by Age Group and Gender, 2017

- In 2017, there were 9,533 hospitalizations of Geauga County residents. Relatively few (13.3%) of those were under age 18 (and of those, 8.6% were newborns). The adult admissions were somewhat evenly split between adults aged 17-64 (38.9%) and adults aged 65 and older (47.7%).

	Patients Age 0-17 Years		Patients Age 18-64 Years		Patients Age 65 Years and Older	
	13.3% of Total Discharges (includes healthy newborns)		38.9% of Total Discharges		47.7% of Total Discharges	
	Male	Female	Male	Female	Male	Female
2017 Total	627	641	1,497	2,216	2,138	2,414

(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)

Hospital Discharge Data for Youth 0-17 Years of Age, 2017

- The data have been compiled into three age groups (0-17 years; 18-64 years; and 65 or more years) and by gender. This is how the federal government typically reports discharge data.

- There were 1,268 hospitalizations of Geauga County residents aged 0-17 years old (including newborns). The table below indicates that the three most frequent discharge conditions for hospitalized newborns, children and youth were: diseases of the respiratory system (4.8%), injury and poisoning (4.0%) and certain conditions originating in the perinatal period (3.9%).

[Healthy newborns not included in analysis]

Disease Grouping	ICD-10 Codes	Total n (%)	Males n (%)	Females n (%)
		1,268 (100%)	641 (50.5%)	627 (49.5%)
Diseases of the respiratory system	J00-J98	61 (4.8%)	38 (5.9%)	23 (3.7%)
Injury, poisoning and certain other consequences of external causes	S00-T34	51 (4.0)	24 (3.7)	27 (4.3)
Certain conditions originating in the perinatal period	P00-P96	50 (3.9%)	28 (4.4%)	22 (3.5%)
Diseases of the digestive system	K00-K92	38 (3.0%)	21 (3.3%)	17 (2.7%)
Diseases of the nervous system and sense organs	T36-T50	26 (2.1%)	15 (2.3%)	11 (1.8%)
Mental and behavioral disorders	F01-F99	29 (2.3%)	8 (1.2%)	21 (3.3%)
Diseases of the nervous system and sense organs	G00-G98	26 (2.1%)	15 (2.3%)	11 (1.8%)
Infectious and parasitic diseases	A00-B99	20 (1.6%)	9 (1.4%)	11 (1.8%)
Endocrine, nutritional and metabolic diseases	E00-E88	21 (1.7%)	10 (1.6%)	11 (1.8%)
Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99	21 (1.7%)	16 (2.5%)	5 (0.8%)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	16 (1.3%)	2 (.3%)	14 (2.2%)
Diseases of the musculoskeletal system and connective tissue	M00-M99	17 (1.3%)	6 (.9%)	11 (1.8%)
Diseases of the genitourinary system	N00-N98	13 (1.0%)	3 (.5%)	10 (1.6%)
Neoplasms	C00-D48	9 (0.7%)	4 (0.6%)	5 (0.8%)
Complications of pregnancy, childbirth and the puerperium	O00-O99	7 (0.6%)		7 (1.1%)
Diseases of the skin and subcutaneous tissue	L00-L98	7 (.6%)	7 (1.1%)	
Diseases of the circulatory system	I00-I99	6 (.5%)	1 (.2%)	5 (.8%)

(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)
** Fewer than 5 cases were not reported to protect privacy.*

Hospital Discharge Data for Adults 18-64 Years of Age, 2017

- There were 3,713 Geauga County residents 18-64 years old discharged from an acute care facility in 2017.
- The table for adults 18-64 years of age below indicates that the three most frequent discharge conditions were: complications related to pregnancy, childbirth, and the puerperium (females only, 22.1% of total); diseases of the digestive system (9.9%); and diseases of the circulatory system (9.9%).

Disease Grouping	ICD-10 Codes	Total n/ (%)	Males n/ (%)	Females n/ (%)
Total		3,713 (100%)	1,497 (40.3%)	2,216 (59.6%)
Complications of pregnancy, childbirth, and the puerperium	O00-O99	819 (22.1% of total)	-	819 (37.0%)
Diseases of the digestive system	K00-K92	367 (9.9%)	154 (10.3%)	213 (9.6%)
Diseases of the circulatory system	I00-I99	369 (9.9%)	234 (15.6%)	135 (6.1%)
Diseases of the musculoskeletal system and connective tissue	M00-M99	329 (8.9%)	161 (10.8%)	168 (7.6%)
Mental and behavioral disorders	F01-F99	312 (8.4%)	173 (11.6%)	139 (6.3%)
Injury and poisoning	S00-T34	287 (7.7%)	165 (11.0%)	122 (5.5%)
Diseases of the respiratory system	J00-J98	241 (6.5%)	125 (8.4%)	116 (5.2%)
Infectious and parasitic diseases	A00-B99	197 (5.3%)	102 (6.8%)	95 (4.3%)
Cancers (neoplasms)	C00-D48	196 (5.3%)	92 (6.1%)	104 (4.7%)
Endocrine, nutritional and metabolic diseases	E00-E88	129 (3.5%)	72 (4.8%)	57 (2.6%)
Diseases of the genitourinary system	N00-N98	121 (3.3%)	51 (3.4%)	70 (3.2%)
Diseases of the nervous system and sense organs	T36-T50	93 (2.5%)	34 (2.3%)	59 (2.7%)
Diseases of the skin and subcutaneous tissue	L00-L98	96 (2.6%)	60 (4.0%)	36 (1.6%)
Diseases of the nervous system and sense organs	G00-G98	93 (2.5%)	34 (2.3%)	59 (2.7%)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	40 (1.1%)	22 (1.5%)	18 (0.8%)

** Fewer than 5 cases were not reported to protect privacy.*
(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)

Hospital Discharge Data for Adults 65 Years of Age and Older, 2017

- There were 4,552 Geauga County residents 65 years of age and older who were discharged from an acute care facility in 2017. This accounts for almost half (48%) of all acute care discharges in 2017 for Geauga County residents.

- For adults 65 years of age and older we see (below) that the three most frequent discharge conditions were: diseases of circulatory system (23.4%), diseases of the respiratory system (12.0%), and diseases of the musculoskeletal system and connective tissue (11.0%).

- There were not large differences between males and females on most diagnostic category frequencies. The most notably exception was that males were more likely than females to have a primary diagnosis for circulatory disease (26.5% vs. 20.7%).

Disease Grouping	ICD-10 Codes	Total n (%)	Males n (%)	Females n (%)
Total		4,552 (100%)	2,138 (46.9%)	2,414 (53.1%)
Diseases of the circulatory system	I00-I99	1,066 (23.4%)	566 (26.5%)	500 (20.7%)
Diseases of the respiratory system	J00-J98	546 (12.0%)	263 (12.3%)	283 (11.7%)
Diseases of the musculoskeletal system and connective tissue	M00-M99	499 (11.0%)	210 (9.8%)	289 (12.0%)
Injury and poisoning	S00-T34	461 (10.1%)	185 (8.7%)	276 (11.4%)
Diseases of the digestive system	K00-K92	432 (9.5%)	189 (8.8%)	243 (10.1%)
Infectious and parasitic diseases	A00-B99	372 (8.2%)	171 (8.0%)	201 (8.3%)
Diseases of the genitourinary system	N00-N98	247 (5.4%)	99 (4.6%)	148 (6.1%)
Cancers (neoplasms)	C00-D48	247 (5.4%)	141 (6.6%)	106 (4.4%)
Diseases of the nervous system and sense organs	G00-G98	132 (2.9%)	64 (3.0%)	68 (2.8%)
Endocrine, nutritional and metabolic diseases	E00-E88	129 (2.8%)	50 (2.3%)	79 (3.3%)
Diseases of the skin and subcutaneous tissue	L00-L98	113 (2.5%)	55 (2.6%)	58 (2.4%)
Mental and behavioral disorders	F01-F99	87 (1.9%)	33 (1.5%)	54 (2.2%)
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89	64 (1.4%)	31 (1.4%)	33 (1.4%)

(Source: Hospital Discharge Data, 2017, as analyzed and reported by Cypress Research)
**Fewer than 5 cases were not reported to protect privacy*

Ambulatory Care Sensitive (ACS) Discharges (Primary Diagnosis), Geauga County Residents (Hospitalized Anywhere), 2017

- **A**mbulatory **C**are **S**ensitive (ACS) conditions are those for which hospital admission could often be prevented by interventions in primary care. A relatively large proportion of ACSs within a geographic area is a signal that the primary care/prevention system has room for improvement, it may indicate a shortage of primary care providers.
- In 2017, there were 9,533 Geauga County residents who were discharged from an inpatient acute care hospital. Of those, 3,702 (38.8% of all Geauga County resident hospitalizations) were hospitalized in UH Geauga Medical Center.
- In 2017, UH Geauga Medical Center cared for a total of 8,898 inpatients. Many of those, however, (5,196 or 58.4%) were non-Geauga County residents.
- Below we show the frequency of ACS cases for both Geauga County resident hospitalizations and Geauga County residents who were hospitalized at UH Geauga Medical Center.
- Overall, 15.8% of the hospitalizations of Geauga County residents were due to an ACS condition.
- The incidence of ACS conditions varied depending on the residency of the patient. The hospitalizations at UH Geauga Medical Center for Geauga County residents was higher (17.1%) than among non-county residents (10.4%, not shown in figure) in that hospital.
- The most common ACS condition among hospitalized Geauga County residents in 2017 was Chronic Obstructive Pulmonary Disease, which comprised 2.4% of all Geauga County residents hospitalized, and 3.6% of UH Geauga Medical Center inpatients. The second most common ACS condition was bacterial pneumonia (2.3% of county residents, and 2.8% of UH Geauga Medical Center discharges. The other more common ACS conditions among Geauga County residents were Congestive heart failure (1.8%) and cellulitis (1.7%).

	Inpatient in Any Hospital: Geauga County Resident		Inpatient in UH Geauga Medical Center	
	Number	**Percent***	**Number**	**Percent***
Total	9,533	100.0%	3,702	100.0%
Total ACS Cases		15.8%		17.1%
Specific Ambulatory Care Sensitive Conditions:				
Chronic Obstructive Pulmonary Disease	233	2.4%	135	3.6%
Bacterial Pneumonia	215	2.3%	103	2.8%
Congestive Heart Failure	173	1.8%	82	2.2%
Cellulitis	159	1.7%	79	201%
Hypertension	121	1.3%	68	1.8%
Hip/Femur Fracture (age 45 and older)	110	1.2%	54	1.5%
Diabetes	76	0.8%	31	0.8%
Gastrointestinal Obstruction	69	0.7%	20	0.5%
Grand Mal Seizure and Other Convulsions	69	0.7%	10	0.3%
Acute Myocardial Infarction	56	0.6%	11	0.3%
Dehydration	47	0.5%	15	0.4%
Gastroenteritis	36	0.4%	20	0.5%
Appendicitis	38	0.4%		
Asthma	30	0.3%	8	0.2%
Kidney/Urinary Tract Infection	22	0.2%	6	0.2%
Convulsions/Epilepsy (age 6 and older)	18	0.2%		
Anemia	13	0.1%	7	0.2%
Dental Conditions	8	<0.1%		
Malnutrition	5	<0.1%		
Ears, Nose, Throat	5	<0.1%		

**More than one ACS conditions is possible for any single admission; Total may be more than 100%*
Fewer than 5 cases were omitted to ensure confidentiality.
(Source: Hospital Ambulatory Care Sensitive Data, 2017, as analyzed and reported by Cypress Research)

Most Common* Ambulatory Care Sensitive (ACS) Discharges (Primary Diagnosis), 2017 All Geauga County Residents (Hospitalized in Ohio), By Major Age Group (Adults Only, Age 18+, 8,265 Cases) *(Minimum of 1% of cases shown)

- The incidence of ACS cases among Geauga County residents in 2017 increased with age. Only 5.9% of those hospitalized adults under age 40 had an ACS condition, one-third that of those aged 40-64 (17.7%). ACS conditions were most common among seniors: about one in five (20.5%) were hospitalized due to an ACS condition in 2017.

- The most common ACS condition (primary diagnosis) associated with hospitalization for younger adult (under 40 years) among Geauga County residents in 2017 were cellulitis (1.3% of younger adults) and bacterial pneumonia (.9%).

- Middle-aged adults (age 40-64) showed a somewhat different pattern of ACS conditions. The most common conditions were chronic obstructive pulmonary disease (COPD) (3.0%), bacterial pneumonia (2.4%) and cellulitis (2.0%). In addition, a significant proportion of that population's hospitalizations was due to diabetes (1.5%).

- For the oldest hospitalized group (age 65+), the most common ACS conditions were COPD (3.6%), congestive heart failure (2.6%), and bacterial pneumonia (2.9%).

	Adult Under 40	Adults Ages 40-64	Adults Age 65+
Total:	1,490 (18.0% of total)	2,223 (26.7%)	4,552 (55.1%)
Any ACS Condition:	(5.9%)	(17.7%)	(20.5%)
Specific Ambulatory Care Sensitive Conditions:			
Chronic Obstructive Pulmonary Disease	1 (0.1%)	67 (3.0%)	165 (3.6%)
Bacterial Pneumonia	13 (0.9%)	54 (2.4%)	134 (2.9%)
Congestive Heart Failure	4 (0.3%)	23 (1.0%)	117 (2.6%)
Cellulitis	19 (1.3%)	44 (2.0%)	92 (2.0%)
Hypertension	3 (0.2%)	16 (0.7%)	102 (2.2%)
Hip/Femur Fracture (age 45 and older)	0 (0.0%)	11 (0.5%)	99 (2.2%)
Diabetes	8 (0.5%)	33 (1.5%)	28 (0.6%)
Grand Mal Seizure and Other Convulsions	11 (0.7%)	25 (1.1%)	12 (0.3%)
Acute Myocardial Infarction	1 (0.1%)	11 (0.5%)	44 (1.0%)

**Only those ACS conditions associated with at least 1% of the group are shown.*
(Source: Hospital Ambulatory Care Sensitive Data, 2017, as analyzed and reported by Cypress Research)

Geauga County Residents, Primary & Secondary Diagnoses, 2017 Hospitalizations Adults Over Age 40 Only

For this analysis, we concentrate on adults age 40 and older. This is because for those under age 40, a large number of hospitalizations are not due to disease states (e.g., are related to childbirth). It is within the population of those over age 40 that we can see a larger prevalence of specific disease states and can learn more about what sort of initiatives can best improve overall health in Geauga County.

Below are the diagnosis specifics for all 6,755 of the Geauga County residents' (age 40+) hospitalizations in 2017, regardless of where they were hospitalized (in or out of the county). Both the diagnostic category, and the most common specific diagnoses are shown. Information for both primary diagnosis and for secondary diagnoses is shown; while the primary diagnosis is related to the primary reason for hospitalizations, understanding the incidence of various diagnoses which are secondary is often more telling of the chronic health conditions facing the community in general.

Some noteworthy findings for Geauga County:

- As highlighted previously, the most common diagnostic categories for the primary diagnoses were **diseases of the circulatory system** (20.7% of all hospitalizations), **diseases of the musculoskeletal system and connective tissue (11.8%), diseases of the respiratory system** (10.9%) and **diseases of the digestive system** (10.5%). These three general categories comprise over half of the hospitalizations for Geauga County residents age 40 and older in 2017.

- Within each of those major diagnostic categories, we see several specific conditions which are far more common primary or secondary conditions:

  Diseases of the Circulatory System:

  - One in twenty (4.5%) of the hospitalizations among Geauga County adults (age 40+) were due to hypertensive heart or kidney disease. Myocardial infarction (3.0%), atrial fibrillation (2.5%) and cerebral infarction (stroke) (1.9%) round out the top most common primary diagnoses.

  - The secondary diagnoses of patients were very telling; these comorbidities, all associated with circulatory disease, were very common among all hospitalizations: essential hypertension (41.6%); atherosclerotic heart disease of the native coronary artery (26.1%); and congestive heart failure (23.9%). Note that for 26.8% (or about one-fourth of the hospitalizations for adults age 40+), their secondary diagnosis included hypertensive heart and/or kidney disease.

  Diseases of the musculoskeletal system and connective tissue

  - The most common primary diagnosis within this category was, by far, osteoarthritis (in particular, hip), associated with 7.2% of hospitalizations.

  Diseases of the Respiratory System:

  - Chronic obstructive pulmonary disease (COPD) (3.2%) and pneumonia (bacterial) (2.4%) were the most common primary respiratory system diagnoses.

  - However, COPD (22.9%), respiratory failure (8.5%), pneumonia (8.6%) were very common secondary diagnoses among those hospitalized in 2017. About four-in-ten of the acute care inpatients had one or more of these comorbidities.

Diseases of the Digestive System:

  - Specific conditions related to the digestive system which were primary diagnoses were very diverse, with diverticulitis being the most common, but only associated with 1.5% of the hospitalizations.

  - However, about one-in-five (27.5%) of the inpatients had a secondary diagnosis of gastro-esophageal reflex disease.

- While mental/behavior related issues were only a primary diagnosis in fewer than one in twenty admissions, they were very commonly a secondary diagnosis; anxiety disorder (16.2%), major depressive order (18.2%), and nicotine dependence (14.0%) were the most common mental health secondary diagnoses.

- While cancer is a leading cause of death in Geauga County, it is not a common reason for hospitalization (6.2% primary diagnosis for 2017 inpatients). Cancer is generally treated primary on an out-patient basis.

- Diseases of the nervous system were rarely a primary cause for hospitalization (2.8%), however 12.6% had a secondary diagnosis of sleep apnea.

- While few primary diagnoses were related to the endocrine, nutritional or metabolic diseases (3.3%), hyperlipidemia was very common as a secondary diagnosis (46.4%), as was Type II diabetes (41.3%).

- Other notable diagnoses (primary or secondary) are below. It is important to keep in mind that these are not necessarily a reflection of the true incidence of these afflictions within the general population; rather, they are best interpreted in terms of how they relate to hospitalization levels and/or the care patients need while inpatients in acute care hospitals.
  - Chronic kidney disease (19.4%)
  - Acute kidney disease (18.8%)
  - Anemia (16.7%)

Geauga County Residents, Primary & Secondary Diagnoses, 2017 Hospitalizations Adults, Age 40+

	Primary Diagnosis (Reason for Hospitalization)		**Secondary Diagnosis** (Patients can have multiple secondary diagnoses)	
Total Geauga County Inpatients Over Age 40	**6,775**			
Diseases of the circulatory system	**1401**	**20.7%**	**N/A**	**N/A**
Hypertensive heart and/or kidney disease	307	4.5%	1,818	26.8%
Myocardial infarction	202	3.0%	442	6.5%
Atrial fibrillation	169	2.5%	752	11.1%
Cerebral infarction	132	1.9%	120	1.8%
Atherosclerotic heart disease of native coronary artery	64	0.9%	1,770	26.1%
Pulmonary embolism	60	0.9%		
Acute embolism & thrombosis of peripheral vein	56	0.8%	241	3.6%
Nonrheumatic mitral valve disease	46	0.7%	447	6.6%
Congestive heart failure	39	0.6%	1,618	23.9%
Essential (primary) hypertension			2,821	41.6%
Paroxysmal/persistent/chronic atrial fibrillation			1,171	17.3%
Old myocardial infarction			706	10.4%
Hypotension			662	9.8%
Pulmonary hypertension			384	5.7%
Peripheral vascular disease, unspecified			278	4.1%
Rheumatic valve disorders			254	3.7%
Cardiomyopathy			247	3.6%
Ischemic cardiomyopathy			228	3.4%
Left bundle-branch block			208	3.1%
Mono/hemi/para/quadriplegia following cerebral infarction			202	3.0%
Supraventricular/ventricular tachycardia			197	2.9%
Atrioventricular block			152	2.2%
Occlusion & stenosis of major peripheral artery			122	1.8%
Acute ischemic heart disease			108	1.6%
Aortic aneurysm			84	1.2%
Hypertensive urgency/emergency/crisis			77	1.1%
Diseases of the musculoskeletal system and connective tissue	**801**	**11.8%**	**N/A**	**N/A**
Unilateral primary osteoarthritis, hip	491	7.2%	169	2.5%
Spinal stenosis	57	0.8%	211	3.1%
Unspecified osteoarthritis, unspecified site			587	8.7%
Idiopathic gout			381	5.6%
Primary osteoarthritis, knee			273	4.0%
Age-related osteoporosis			254	3.7%
Rheumatoid arthritis			230	3.4%
Dorsalgia			194	2.9%
Fibromyalgia			126	1.9%

N/A – Multiple diagnoses possible; proportion is not applicable.

(Source: annual Hospital Discharge Data Analysis, 2017, as analyzed and reported by Cypress Research)

Geauga County Residents Age 40+, Primary & Secondary Diagnoses, 2017 Hospitalizations Adults, (cont.)

	Primary Diagnosis (Reason for Hospitalization)		Secondary Diagnosis (Patients can have multiple secondary diagnoses)	
Diseases of the respiratory system	**739**	**10.9**	**N/A**	**N/A**
Chronic obstructive pulmonary disease	218	3.2%	1,551	22.9%
Bacterial pneumonia, unspecified organism	163	2.4%	585	8.6%
Chronic respiratory failure, acute episode	70	1.0%	578	8.5%
Pneumonitis due to inhalation of food & vomit	66	1.0%	142	2.1%
Acute respiratory failure	58	0.9%		
Influenza	37	0.5%	37	0.5%
Bacterial pneumonia	35	0.5%	82	1.2%
Asthma			504	7.4%
Atelectasis			289	4.3%
Pleural effusion, not elsewhere classified			193	2.8%
Acute bronchitis			133	2.0%
Diseases of the digestive system	**713**	**10.5%**	**N/A**	**N/A**
Diverticulitis of large/small intestine	101	1.5%	321	4.7%
Intestinal obstruction	56	0.8%	182	2.7%
Gastro-esophageal reflux disease			1,865	27.5%
Gastric-intestinal ulcer			140	2.1%
Diaphragmatic hernia			191	2.8%
Gastritis			132	1.9%
Injury & poisoning	**654**	**9.7**	**N/A**	**N/A**
Bone fracture	261	3.9%	570	8.4%
Prosthetic device hemorrhage/failure/dislocation/infection	78	1.2%		
Traumatic brain injury	45	0.7%		
Drug poisoning	27	0.4%	75	1.1%
Adverse drug effect			197	2.9%
Infectious and parasitic diseases	**521**	**7.7**	**N/A**	**N/A**
Sepsis (various organisms)	440	6.5%	382	5.6%
Streptococcus infection			159	2.3%
Candidiasis			138	2.0%
Unspecified Escherichia coli infection			127	1.9%
Tinea			55	0.8%
Viral hepatitis C			50	0.7%
Cancers (malignant neoplasms)	**421**	**6.2**	**N/A**	**N/A**
Malignant neoplasm of pleura or lung (primary or secondary)	59	0.9%	236	3.5%
Secondary malignant neoplasm of liver & intrahepatic bile duct			104	1.5%
Malignant neoplasm within female reproductive system			71	1.0%
Malignant neoplasm of breast			58	0.9%
Leukemia			57	0.8%
Malignant neoplasm within male reproductive system (prostate)			56	0.8%
Diseases of the genitourinary system	**332**	**4.9**	**N/A**	**N/A**
Acute kidney failure	145	2.1%	1,275	18.8%
Urinary tract infection	85	1.3%		
Chronic kidney disease (stage 1-5)			1,316	19.4%
Benign prostatic hyperplasia			710	10.5%

N/A – Multiple diagnoses possible; proportion is not applicable.
(Source: annual Hospital Discharge Data Analysis, 2017, as analyzed and reported by Cypress Research)

Geauga County Residents Age 40+, Primary & Secondary Diagnoses, 2017 Hospitalizations Adults, (cont.)

	Primary Diagnosis (Reason for Hospitalization)		Secondary Diagnosis (Patients can have multiple secondary diagnoses)	
Mental and behavioral disorders	**232**	**3.4**	**N/A**	**N/A**
Alcohol abuse/dependence	79	1.2%	365	5.4%
Major depressive disorder	57	0.8%	1,232	18.2%
Bipolar disorder	24	0.4%	134	2.0%
Dementia	23	0.3%	679	10.0%
Anxiety disorder			1,100	16.2%
Nicotine dependence			950	14.0%
Delirium due to known physiological condition			67	1.0%
Intellectual disability (mild to profound)			60	0.9%
Opioid abuse/dependence			54	0.8%
Post-traumatic stress disorder			45	0.7%
Cannabis abuse			40	0.6%
Schizophrenia			35	0.5%
Endocrine, nutritional and metabolic diseases	**224**	**3.3**	**N/A**	**N/A**
Type II Diabetes	75	1.1%	2,800	41.3%
Type I diabetes			106	1.6%
Mixed or unspecified hyperlipidemia			3,145	46.4%
Hypothyroidism			1,287	19.0%
Obesity (mild to morbid)			1,053	15.5%
Hypokalemia			812	12.0%
Dehydration			784	11.6%
Protein-calorie malnutrition			696	10.3%
Hypo-osmolality & hyponatremia			645	9.5%
Acidosis			393	5.8%
Hyperkalemia			308	4.5%
Pure hypercholesterolemia			298	4.4%
Hypomagnesemia			268	4.0%
Vitamin D deficiency			254	3.7%
Hypovolemia			244	3.6%
Disorders of phosphorus metabolism			162	2.4%
Hyperosmolality & hypernatremia			146	2.2%
Alkalosis			84	1.2%
Vitamin B deficiency			77	1.1%
Hypocalcemia			63	0.9%
Hypercalcemia			60	0.9%

N/A – Multiple diagnoses possible; proportion is not applicable.
(Source: annual Hospital Discharge Data Analysis, 2017, as analyzed and reported by Cypress Research)

Geauga County Residents Age 40+, Primary & Secondary Diagnoses, 2017 Hospitalizations Adults, (cont.)

	Primary Diagnosis (Reason for Hospitalization)		Secondary Diagnosis (Patients can have multiple secondary diagnoses)	
Diseases of the nervous system and sense organs	**192**	**2.8**	**N/A**	**N/A**
Epilepsy/epileptic seizure	39	0.6%	202	3.0%
Alzheimer's disease	26	0.4%	108	1.6%
Encephalopathy	25	0.4%	566	8.4%
Transient cerebral ischemic attack	24	0.4%	39	0.6%
Sleep apnea			856	12.6%
Chronic pain			538	7.9%
Insomnia			232	3.4%
Parkinson's disease			159	2.3%
Polyneuropathy			154	2.3%
Restless legs syndrome			139	2.1%
Migraine			133	2.0%
Mono/Hemiplegia/Para/Quadriplegia			128	1.9%
Multiple sclerosis			42	0.6%
Diseases of the skin and subcutaneous tissue	**181**	**2.7**	**N/A**	**N/A**
Cellulitis	134	2.0%	386	5.7%
Non-pressure chronic ulcer of skin			247	3.6%
Pressure ulcer			207	3.1%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	**96**	**1.4**	**N/A**	**N/A**
Iron deficiency anemia	23	0.3%	191	2.8%
Anemia, unspecified	49	0.7%	1,131	16.7%
Iron deficiency anemia secondary to blood loss (chronic)			71	1.0%
Acute post-hemorrhagic anemia			806	11.9%
Thrombocytopenia			496	7.3%
Elevated white blood cell count			251	3.7%
Certain conditions arising in the perinatal period	**29**	**0.4**	**N/A**	**N/A**
Congenital malformations, deformations and chromosomal abnormalities	**9**	**0.1**	**N/A**	**N/A**
Diseases of the ear and mastoid process	**6**	**0.1**	**N/A**	**N/A**
Hearing loss			249	3.7%
Diseases of the eye and adnexa	**3**	**0.0**	**N/A**	**N/A**
Unspecified macular degeneration			136	2.0%

N/A – Multiple diagnoses possible; proportion is not applicable.
(Source: annual Hospital Discharge Data Analysis, 2017, as analyzed and reported by Cypress Research)

Healthcare Access: Preventive Medicine

Key Findings

More than half (54%) of Geauga County adults had a flu vaccine during the past 12 months. Seventy-eight percent (78%) of adults over the age of 65 had a pneumonia vaccine at some point in their life. Fifty-eight percent (58%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy within the past five years.

Preventive Medicine

- Fifty-four percent (54%) of Geauga County adults had a flu vaccine during the past 12 months, increasing to 76% of adults ages 65 and over.

- Thirty-seven percent (37%) of adults had a pneumonia vaccine in their life, increasing to 78% of those ages 65 and over.

- Geauga County adults had the following vaccines:
  - MMR in their lifetime (81%)
  - Tetanus, diphtheria, and pertussis in the past 10 years (81%)
  - Chicken pox in their lifetime (64%)
  - Hepatitis B in their lifetime (45%)
  - Hepatitis A in their lifetime (38%)
  - Haemophilus influenzae or Influenza B in their lifetime (36%)
  - Zoster (shingles) vaccine in their lifetime (27%)
  - Meningococcal vaccine (MenACWY or MenB) in their lifetime (25%)
  - Human papillomavirus (HPV) vaccine in their lifetime (15%)

Preventive Health Screenings and Exams

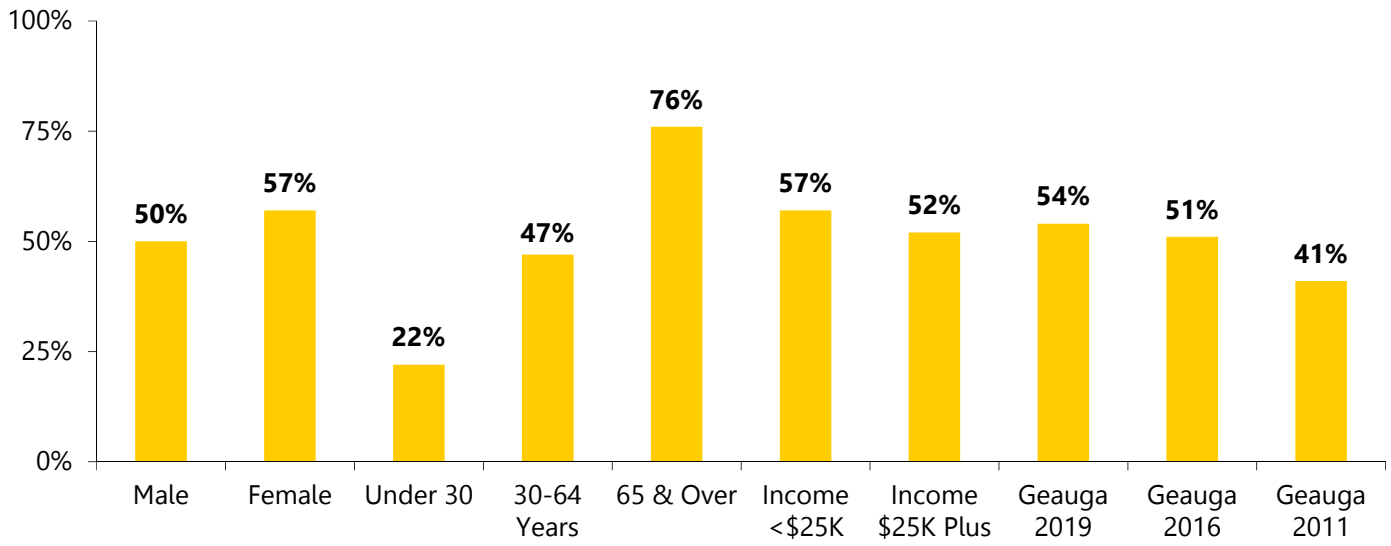
- Geauga County adults had the following checked in the past two years: vision (75%), skin (34%), hearing (26%), and bone density (12%).

- Fifty-eight percent (58%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy within the past five years.

- Geauga County adults indicated a doctor or health professional talked to them about following topics in the past 12 months:
  - Family history (45%)
  - Immunizations (43%)
  - Weight control (38%)
  - Depression, anxiety, or other mental health issues (25%)
  - Safe use of prescription medication (19%)
  - Falls (16%)
  - Tobacco use (13%)
  - Prostate Specific Antigen (PSA) test (13%)
  - Bone density (12%)
  - Alcohol use (12%)
  - Injury prevention (12%)
  - Family planning (10%)
  - Alternative pain therapies (9%)
  - Safe use of opiate-based pain medication (6%)
  - Sexually transmitted diseases (STD's) (6%)
  - Domestic violence (6%)
  - Genetic testing (5%)
  - Firearm safety (4%)
  - Self-testicular exams (4%)
  - Illicit drug abuse (2%)
  - Problem gambling (1%)

The following graph shows the percentages of Geauga County adults who received a flu vaccine within the past year. An example of how to interpret the information in the graph includes: 54% of all adults in Geauga County received a flu vaccine in the past year, including 76% of those ages 65 and older.

Geauga County Adults Who Received a Flu Vaccine Within the Past Year



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Ever had a pneumonia vaccination (age 65 and older)	N/A	81%	78%	76%	75%
Had a flu shot within the past year (age 65 and older)	41%	83%	76%	63%	60%
Ever had a shingles or zoster vaccine	N/A	18%	27%	29%	29%
Had a colonoscopy or sigmoidoscopy within the past 5 years (age 50 and older)	67%	54%	58%	72%*	74%*

**2016 BRFSS*

Healthy People 2020
Immunization and Infectious Diseases (IID)

Objective	Geauga County 2019	Ohio 2017	U.S. 2017	Healthy People 2020 Target
IID-13.1: Increase the percentage of non-institutionalized high-risk adults aged 65 years and older who are vaccinated against pneumococcal disease	78%	76%	75%	90%
IID-12.7: Increase the percentage of non-institutionalized high-risk adults aged 65 years and older who are vaccinated annually against seasonal influenza	76%	63%	60%	90%
IID-14: Increase the percentage of adults who are vaccinated against zoster (shingles)	27%	29%	29%	30%

Note: U.S. baseline is age-adjusted to the 2000 population standard
(Sources: Healthy People 2020 Objectives, 2017 BRFSS, 2019 Geauga County Health Assessment)

Recommended Adult Immunization Schedule by Age Group
United States, 2019

Vaccine	19–21 years	22–26 years	27–49 years	50–64 years	≥65 years
Influenza inactivated (IIV) or **Influenza recombinant** (RIV)	1 dose annually				
or					
Influenza live attenuated (LAIV)	1 dose annually				
Tetanus, diphtheria, pertussis (Tdap or Td)	1 dose Tdap, then Td booster every 10 yrs				
Measles, mumps, rubella (MMR)	1 or 2 doses depending on indication (if born in 1957 or later)				
Varicella (VAR)	2 doses (if born in 1980 or later)				
Zoster recombinant (RZV) *(preferred)*				2 doses	
or				or	
Zoster live (ZVL)				1 dose	
Human papillomavirus (HPV) **Female**	2 or 3 doses depending on age at initial vaccination				
Human papillomavirus (HPV) **Male**	2 or 3 doses depending on age at initial vaccination				
Pneumococcal conjugate (PCV13)	1 dose				
Pneumococcal polysaccharide (PPSV23)	1 or 2 doses depending on indication				1 dose
Hepatitis A (HepA)	2 or 3 doses depending on vaccine				
Hepatitis B (HepB)	2 or 3 doses depending on vaccine				
Meningococcal A, C, W, Y (MenACWY)	1 or 2 doses depending on indication, then booster every 5 yrs if risk remains				
Meningococcal B (MenB)	2 or 3 doses depending on vaccine and indication				
***Haemophilus influenzae* type b** (Hib)	1 or 3 doses depending on indication				

Recommended vaccination for adults who meet age requirement, lack documentation of vaccination, or lack evidence of past infection

Recommended vaccination for adults with an additional risk factor or another indication

No recommendation

(Source: Immunization Schedules, Centers for Disease Control and Prevention, 2019)

Healthcare Access: Women's Health

Key Findings

Sixty-two percent (62%) of Geauga County women over the age of 40 reported having a mammogram in the past year. Sixty-four percent (64%) of women had a clinical breast exam and 38% had a Pap smear to detect cancer of the cervix in the past year. Forty-seven percent (47%) of Geauga County women were overweight or obese, 31% had high blood cholesterol, 27% had high blood pressure, and 14% were identified as current smokers, known risk factors for cardiovascular diseases.

Geauga County Female Leading Causes of Death, 2015–2017

Total female deaths: 1,367

1. Heart Disease (23% of all deaths)
2. Cancer (22%)
3. Chronic Lower Respiratory Diseases (6%)
4. Stroke (5%)
5. Accidents, Unintentional Injuries (4%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

Ohio Female Leading Causes of Death, 2015–2017

Total female deaths: 180,539

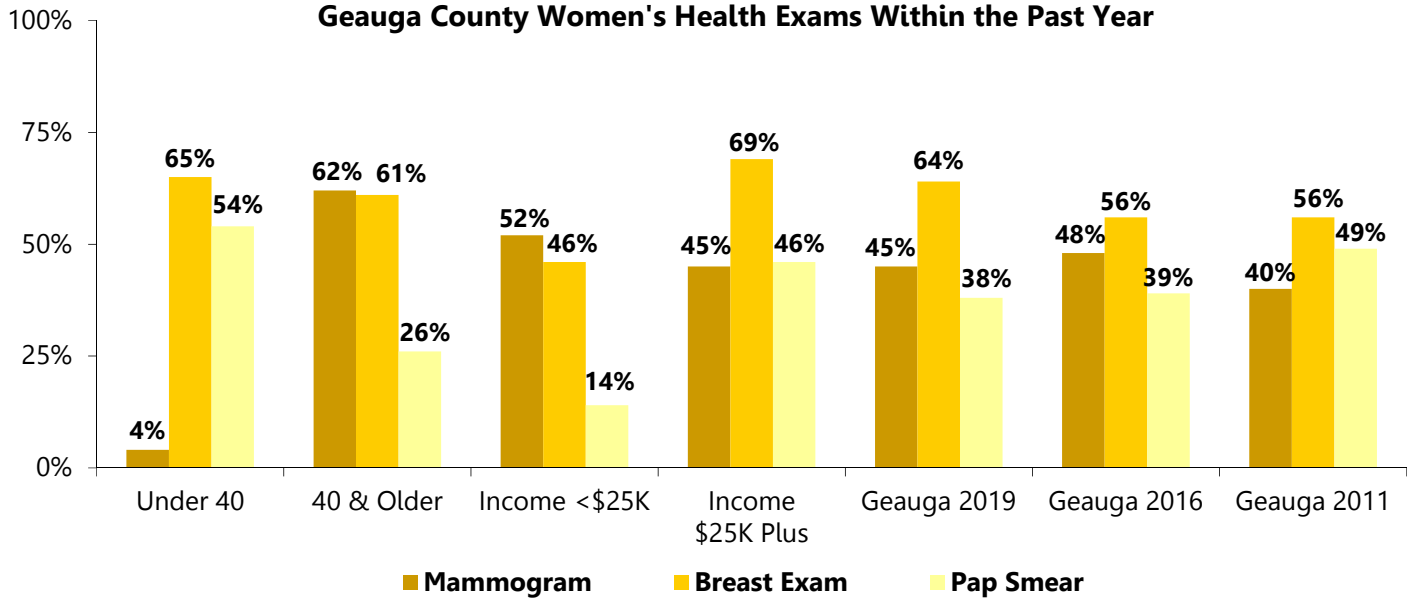
1. Heart Disease (22% of all deaths)
2. Cancer (20%)
3. Chronic Lower Respiratory Diseases (6%)
4. Stroke (6%)
5. Alzheimer's Disease (6%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

Women's Health Screenings

- Sixty-eight percent (68%) of women had a mammogram at some time in their life, and 45% had this screening in the past year.
- Sixty-two percent (62%) of women ages 40 and over had a mammogram in the past year and 79% had one in the past two years.
- Ninety-five percent (95%) of Geauga County women had a clinical breast exam at some time in their life, and 64% had one within the past year.
- Seventy-one percent (71%) of women ages 40 and over had a clinical breast exam in the past two years.
- Eighty-six percent (86%) of Geauga County women have had a pap smear at some time in their life and 38% reported having had an exam in the past year.
- Eighty percent (80%) of women ages 21 to 65 had a pap smear in the past three years.

The following graph shows the percentage of Geauga County female adults that had various health exams in the past year. An example of how to interpret the information in the graph includes: 45% of females had a mammogram within the past year, 64% had a clinical breast exam, and 38% had a pap smear.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Had a clinical breast exam in the past two years (age 40 and older)	N/A	75%	71%	N/A	N/A
Had a mammogram within the past two years (age 40 and older)	77%	78%	79%	74%*	72%*
Had a pap test in the past three years (ages 21-65)	N/A	69%	80%	82%*	80%*

N/A – Not Available
**2016 BRFSS*

Women's Health Concerns

- Major risk factors for cardiovascular disease include smoking, obesity, high blood cholesterol, high blood pressure, physical inactivity, and diabetes. In Geauga County, the 2019 health assessment identified that:
  - 59% of women were overweight or obese (2017 BRFSS reported 64% for Ohio and 2016 BRFSS reported 59% for the U.S.)
  - 31% were diagnosed with high blood cholesterol (2017 BRFSS reported 33% for Ohio and 2016 BRFSS reported 35% for the U.S.)
  - 27% were diagnosed with high blood pressure (2017 BRFSS reported 33% for Ohio and 2016 BRFSS reported 30% for the U.S.)
  - 14% of all women were current smokers (2017 BRFSS reported 20% for Ohio and 2016 BRFSS reported 14% for the U.S.)
  - 4% had been diagnosed with diabetes (2017 BRFSS reported 11% for Ohio and 2016 BRFSS reported 11% for the U.S.)

Pregnancy

- Twenty-five percent (25%) of Geauga County women had been pregnant in the past 5 years.

- During their last pregnancy within the past five years, Geauga County women did the following:
  - Had a prenatal appointment in the first 3 months (82%)
  - Took a multi-vitamin with folic acid (80%)
  - Had a dental exam (50%)
  - Experienced depression (16%)
  - Received WIC services (11%)
  - Smoked cigarettes or used other tobacco products (2%)
  - Used drugs not prescribed to them (2%)
  - Used opioids (2%)
  - Looked for options for an unwanted pregnancy (2%)

Women's Health National Data

- Approximately 13% of adult females ages 18 years or older reported fair or poor health.
- 12% of adult females in the U.S. currently smoke.
- Of the adult females in the U.S., 20% had four or more drinks in one day at least once in the past year.
- Only 49% of adult females in the U.S. met the 2008 federal physical activity guidelines for aerobic activity through leisure-time aerobic activity.
- 41% of females ages 20 years and older are obese.
- 34% of females ages 20 and older have hypertension.
- There are 10% of females under the age of 65 without healthcare coverage.
- The leading causes of death for females in the United States are heart disease, cancer, and stroke.

(Source: CDC, National Center for Health Statistics, Women's Health, Fast Stats, Updated on May 3, 2017)

Healthcare Access: Men's Health

Key Findings

Over half (53%) of Geauga County males over the age of 50 had a prostate-specific antigen (PSA) test in the past year. Seventy-four percent (74%) of men were overweight or obese, 47% had been diagnosed with high blood cholesterol, 34% had high blood pressure, and 6% were identified as current smokers, known risk factors for cardiovascular diseases.

Men's Health Screenings

- Forty-eight percent (48%) of all Geauga County males had a prostate-specific antigen (PSA) test at some time in their life and 34% had one in the past year.
- Sixty-two percent (62%) of males age 40 and over had a PSA test at some time in their life, and 54% had one in the past two years.
- Seventy percent (70%) of males age 50 and over had a PSA test at some time in their life, and 53% had one in the past year.

Geauga County Male
Leading Causes of Death, 2015–2017

Total male deaths: 1,266

1. Cancer (25% of all deaths)
2. Heart Diseases (25%)
3. Accidents, Unintentional Injuries (7%)
4. Chronic Lower Respiratory Diseases (5%)
5. Diabetes (3%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

Ohio Male
Leading Causes of Death, 2015–2017

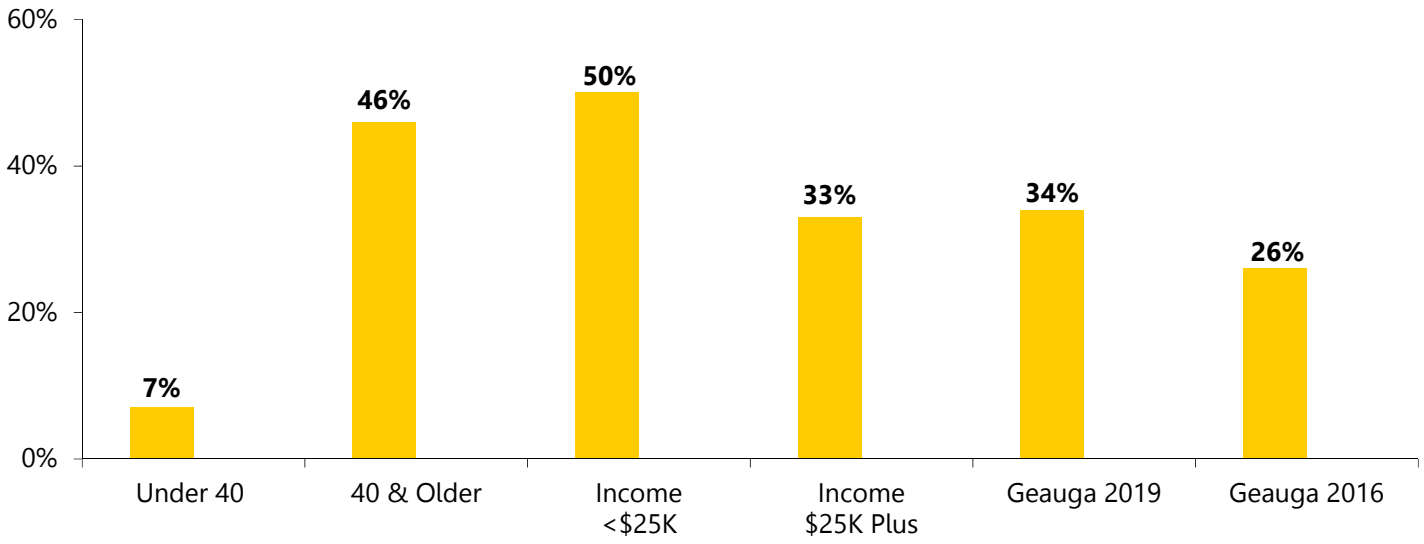
Total male deaths: 180,695

1. Heart Diseases (24% of all deaths)
2. Cancer (22%)
3. Accidents, Unintentional Injuries (8%)
4. Chronic Lower Respiratory Diseases (6%)
5. Stroke (4%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

The following graph shows the percentage of Geauga County males that had a PSA test in the past year. An example of how to interpret the information in the graph includes: 34% of Geauga County males had a PSA test within the past year, including 46% of those ages 40 and older.

Geauga County Men who had a PSA Test Within the Past Year



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Had a PSA test within the past two years (age 40 and older)	N/A	56%	54%	39%*	40%*

N/A – Not Available
**2016 BRFSS*

Men's Health Concerns

- Major risk factors for cardiovascular disease include smoking, obesity, high blood cholesterol, high blood pressure, and diabetes. In Geauga County, the 2019 health assessment identified that:
  - 74% of men were overweight or obese (2017 BRFSS reported 72% for Ohio and 2016 BRFSS reported 71% for the U.S.)
  - 47% had been diagnosed with high blood cholesterol (2017 BRFSS reported 34% for Ohio and 2016 BRFSS reported 38% for the U.S.)
  - 34% had been diagnosed with high blood pressure (2017 BRFSS reported 37% for Ohio and 2016 BRFSS reported 34% for the U.S.)
  - 12% had been diagnosed with diabetes (2017 BRFSS reported 11% for Ohio and 2016 BRFSS reported 11% for the U.S.)
  - 6% of all men were current smokers (2017 BRFSS reported 22% for Ohio and 2016 BRFSS reported 19% for the U.S.)

Men's Health National Data

- Approximately 12% of adult males ages 18 years or older reported fair or poor health.
- Sixteen percent (16%) of adult males in the U.S. currently smoke.
- Of the adult males in the U.S., 31% had 5 or more drinks in 1 day at least once in the past year.
- Fifty-eight percent (58%) of adult males in the U.S. met the 2008 federal physical activity guidelines for aerobic activity through leisure-time aerobic activity.
- Thirty-seven percent (37%) of men 20 years and over are obese.
- There are 12% of males under the age of 65 without healthcare coverage.
- The leading causes of death for males in the United States are heart disease, cancer and accidents (unintentional injuries).

(Source: CDC, National Center for Health Statistics, Men's Health, Fast Stats, Updated on May 3, 2017)

Healthcare Access: Oral Health

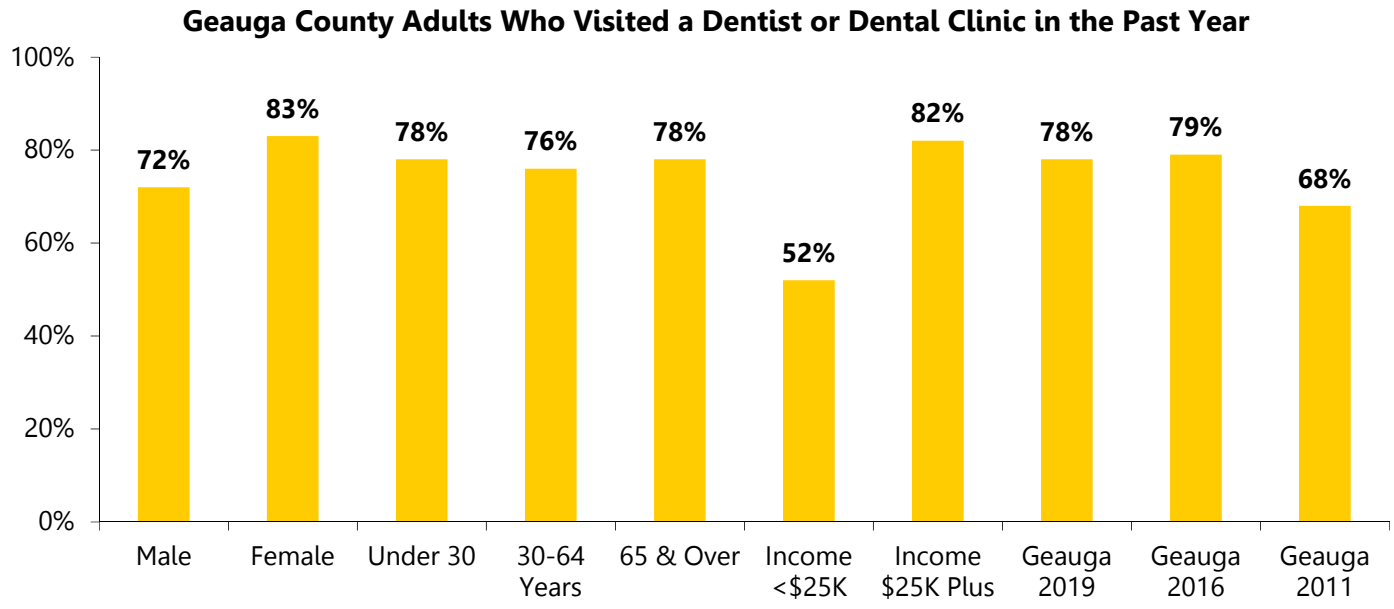
Key Findings

Seventy-eight percent (78%) of Geauga County adults had visited a dentist or dental clinic in the past year. Eighty percent (80%) of Geauga County adults with dental insurance had been to the dentist in the past year, compared to 46% of those without dental insurance.

Access to Dental Care

- In the past year, 78% of Geauga County adults had visited a dentist or dental clinic, decreasing to 52% of those with incomes less than $25,000.
- Seven percent (7%) of adults visited a dentist or dental clinic five or more years ago.
- Eighty percent (80%) of Geauga County adults with dental insurance had been to the dentist in the past year, compared to 46% of those without dental insurance.
- Geauga County adults reported the following reasons for not visiting a dentist or dental clinic in the past year:
  - Cost (38%)
  - No reason to go/had not thought of it (28%)
  - Fear, apprehension, nervousness, pain, or dislike going (24%)
  - Have dentures (15%)
  - Did not have or know a dentist (6%)
  - Transportation (3%)
  - Could not get into a dentist (2%)
  - Dentist did not accept their medical coverage (1%)
  - Other (11%)

The following graph shows the percentage of Geauga County adults who had visited a dentist or dental clinic in the past year. An example of how to interpret the information in the graph includes: 78% of adults had been to the dentist or dental clinic in the past year, including 52% of those with incomes less than $25,000.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Visited a dentist or dental clinic (within the past year)	68%	79%	78%	68%*	66%*
Visited a dentist or a dental clinic (5 or more years ago)	10%	6%	7%	11%*	10%*

**2016 BRFSS*

Adult Oral Health	Within the Past Year	Within the Past 2 Years	Within the Past 5 Years	5 or More years	Never	Don't Know
Time Since Last Visit to Dentist/Dental Clinic						
Males	72%	12%	6%	9%	<1%	1%
Females	83%	3%	8%	5%	0%	1%
Total	78%	7%	7%	7%	<1%	1%

**Percentages may not equal 100% due to the exclusion of data for those who answered "Don't know"*

Oral Health Basics

- Oral health affects our ability to speak, smile, eat, and show emotions. It also affects self-esteem, school performance, and attendance at work and school. Oral diseases—which range from cavities to gum disease to oral cancer—cause pain and disability for millions of Americans. They also cost taxpayers billions of dollars each year.
- Cavities (also called tooth decay) are one of the most common chronic diseases in the United States. By age 34, more than 80% of people have had at least one cavity. More than 40% of adults have felt pain in their mouth in the last year. The nation spends more than $124 billion a year on costs related to dental care. On average, over 34 million school hours are lost and over $45 billion is lost in productivity each year due to unplanned (emergency) dental care.
- Oral health has been linked with other chronic diseases, like diabetes and heart disease. It is also linked with risk behaviors like using tobacco and eating and drinking foods and beverages high in sugar.
- Public health strategies such as community water fluoridation and school dental sealant programs have been proven to save money and prevent cavities.

(Source: CDC, Division of Oral Health, National Center for Chronic Disease Prevention and Health Promotion, Updated June 3, 2019)

Health Behaviors: Health Status Perceptions

Key Findings

Three-fifths (60%) of Geauga County adults rated their health status as excellent or very good. Conversely, 9% of adults described their health as fair or poor, increasing to 17% of those with incomes less than $25,000.

General Health Status

- Sixty percent (60%) of Geauga County adults rated their health as excellent or very good. Adults with higher incomes (65%) were more likely to rate their health as excellent or very good, compared to 33% of those with incomes less than $25,000.
- Nine percent (9%) of adults in Geauga County rated their health as fair or poor.
- Geauga County adults were more likely to rate their health as fair or poor if they:
  - Had been diagnosed with diabetes (19%), compared to 7% of adults who were not diagnosed with diabetes.
  - Had an annual household income under $25,000 (17%), compared to 6% of those who had incomes $25,000 or more.
  - Had been diagnosed with high blood pressure (15%), compared to 5% of adults who were not diagnosed high blood pressure.
  - Were widowed (15%), compared to 13% of those who were divorced, 12% of those who were never married, 7% of those who were married, 0% of those who were separated, and 0% of those who were a member or an unmarried couple.
- In the past month, 22% of adults reported that poor physical or mental health kept them from doing usual activities such as self-care, work, or recreation.

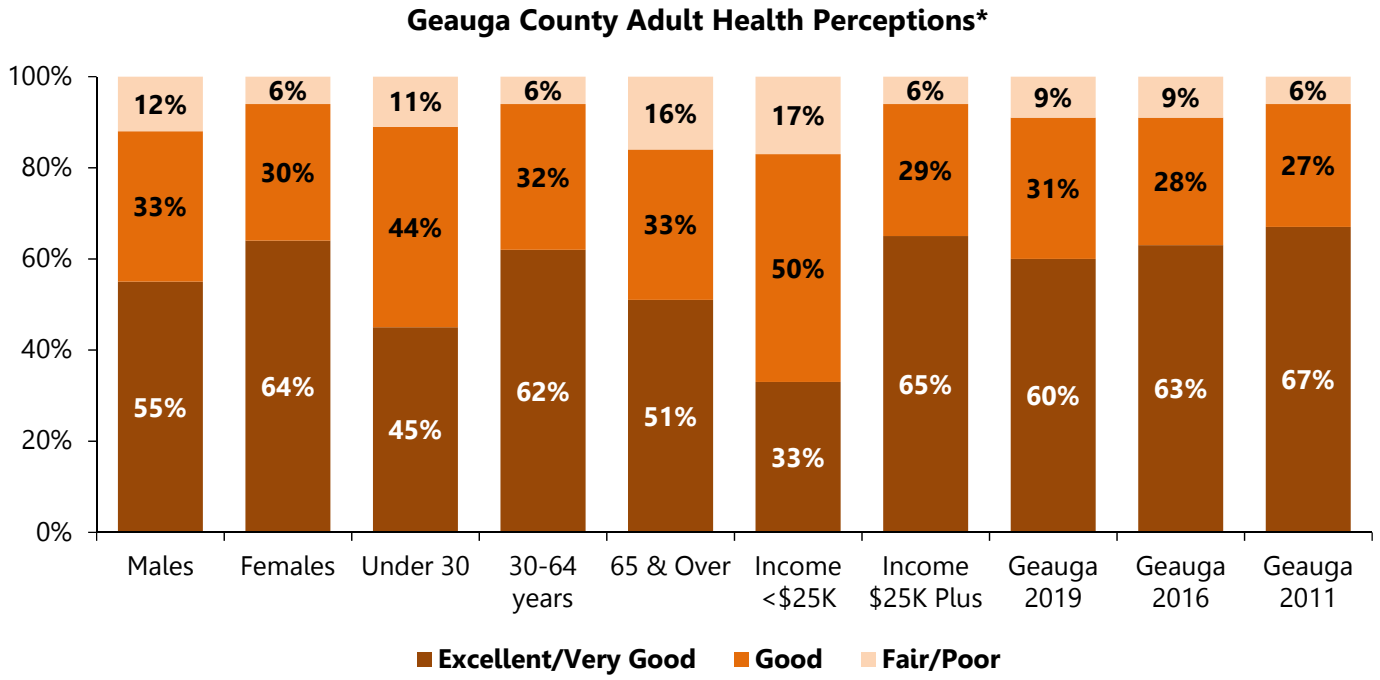
Physical Health Status

- More than one-fifth (23%) of Geauga County adults rated their physical health as not good on four or more days in the previous month.
- Geauga County adults reported their physical health as not good on an average of 3.3 days in the previous month.
- Geauga County adults were more likely to rate their physical health as not good if they:
  - Had an annual household income under $25,000 (54%), compared to 39% of those who had incomes $25,000 or more.
  - Were female (43%), compared to 38% of males.

Mental Health Status

- Twenty-five percent (25%) of Geauga County adults rated their mental health as not good on four or more days in the previous month.
- Geauga County adults reported their mental health as not good on an average of 3.6 days in the previous month.
- Geauga County adults were more likely to rate their mental health as not good if they:
  - Had an annual household income under $25,000 (50%), compared to 39% of those who had incomes $25,000 or more.
  - Were female (44%), compared to 31% of males.

The following graph shows the percentage of Geauga County adults who described their personal health status as excellent/very good, good, and fair/poor. An example of how to interpret the information in the graph includes: 60% of all adults, 55% of males and 64% of females rated their health as excellent or very good.



**Respondents were asked: "Would you say that in general your health is excellent, very good, good, fair or poor?"*
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

The following table shows the percentage of adults with poor physical and mental health in the past 30 days.

Health Status	No Days	1-3 Days	4-5 Days	6-7 Days	8 or More Days
Physical Health Not Good in Past 30 Days*					
Males	54%	20%	5%	2%	11%
Females	52%	17%	8%	4%	14%
Total	53%	19%	7%	3%	13%
Mental Health Not Good in Past 30 Days*					
Males	65%	14%	4%	3%	10%
Females	52%	13%	7%	4%	20%
Total	58%	13%	6%	3%	16%

**Totals may not equal 100% as some respondents answered, "Don't know"*

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Rated general health as good, very good, or excellent	94%	91%	91%	81%	83%
Rated general health as excellent or very good	67%	63%	60%	49%	51%
Rated general health as fair or poor	6%	9%	9%	19%	18%
Rated physical health as not good on four or more days (in the past 30 days)	16%	19%	23%	22%*	22%*
Average number of days that physical health not good (in the past 30 days) (County Health Rankings)	N/A	3.8	3.3	4.0¥	3.7¥
Rated mental health as not good on four or more days (in the past 30 days)	18%	28%	25%	24%*	23%*
Average number of days that mental health not good (in the past 30 days) (County Health Rankings)	N/A	4.8	3.6	4.3¥	3.8¥
Poor physical or mental health kept them from doing usual activities, such as self-care, work, or recreation (on at least one day during the past 30 days)	18%	21%	22%	22%*	22%*

**2016 BRFSS*
N/A – Not Available
¥2016 BRFSS data as compiled by 2018 County Health Rankings

Health Behaviors: Weight Status

Key Findings

Sixty-five percent (65%) of Geauga County adults were overweight or obese based on Body Mass Index (BMI). Eighteen percent (18%) of adults were not participating in any physical activity in the past week, including 2% who were unable to exercise.

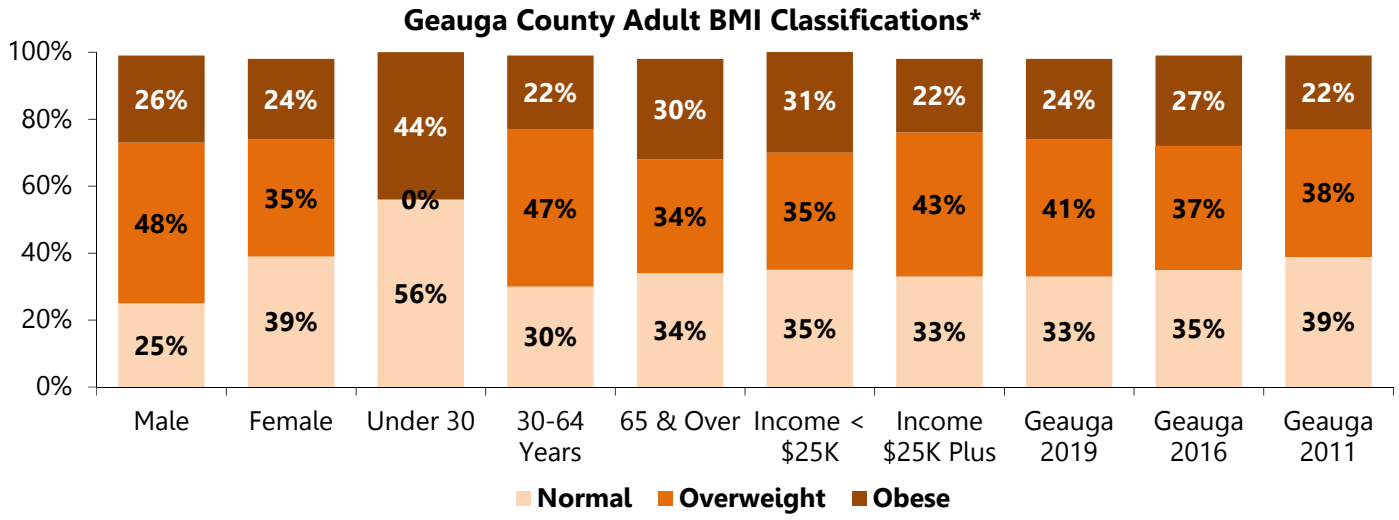
16,287 Geauga County adults were obese.

Weight Status

- Sixty-five percent (65%) of Geauga County adults were either overweight (41%) or obese (24%) by Body Mass Index (BMI).
- Fifty percent (50%) of adults were trying to lose weight, 34% were trying to maintain their current weight or keep from gaining weight, and 2% were trying to gain weight.
- Adults did the following to lose weight or keep from gaining weight:
  - Ate less food, fewer calories, or foods low in fat (56%)
  - Exercised (54%)
  - Drank more water (48%)
  - Ate a low-carb diet (25%)
  - Used a weight loss program (4%)
  - Took diet pills, powders, or liquids without a doctor's advice (2%)
  - Smoked cigarettes (2%)
  - Received health coaching (2%)
  - Participated in a prescribed dietary or fitness program (2%)
  - Took prescribed medications (1%)
  - Went without eating 24 hours (1%)
  - Vomited after eating (1%)
  - Bariatric surgery (1%)

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Normal weight (BMI of 18.5 – 24.9)	39%	35%	33%	30%	32%
Overweight (BMI of 25.0 – 29.9)	38%	37%	41%	34%	35%
Obese (BMI of 30.0 and above)	22%	27%	24%	34%	32%

The following graph shows the percentage of Geauga County adults who were normal weight, overweight or obese by Body Mass Index (BMI). An example of how to interpret the information in the graph includes: 33% of all adults were classified as normal weight, 41% were overweight, and 24% were obese.



Percentages may not equal 100% due to the exclusion of data for those who were classified as underweight
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Physical Activity

- Sixty-five percent (65%) of adults engaged in some type of physical activity or exercise for at least 30 minutes 3 or more days per week; 37% of adults exercised 5 or more days per week; and 18% of adults were not participating in any physical activity in the past week, including 2% who were unable to exercise.

- Reasons for not exercising included the following:
  - Time (20%)
  - Self-motivation or will power (17%)
  - Too tired (16%)
  - Weather (15%)
  - Laziness (11%)
  - Pain or discomfort (9%)
  - Poorly maintained/no sidewalks (6%)
  - Did not like to exercise (6%)
  - Choose not to exercise (5%)
  - Ill/physically unable to exercise (5%)
  - No child care (4%)
  - No exercise partner (4%)
  - Could not afford a gym membership (3%)
  - No walking, biking trails or parks (2%)
  - Afraid of injury (2%)
  - Did not know what activities to do (1%)
  - No gym available (1%)
  - Neighborhood safety (1%)
  - Lack of opportunities for those with physical impairments/challenges (1%)
  - Transportation (<1%)
  - Other (2%)

- Adults spent the most time doing the following physical activities in the past year:
  - Walking (27%)
  - Exercise through their occupation (5%)
  - Running/jogging (4%)
  - Exercise machines (3%)
  - Strength training (3%)
  - Cycling (2%)
  - Group exercise classes (2%)
  - Swimming (1%)
  - Exercise videos (1%)
  - Other activities (6%)

- More than one-third (35%) of adults participated in multiple types of physical activity.

Nutrition

- The table below indicates the number of servings of fruit, vegetables, sugar-sweetened beverages, and caffeinated beverages Geauga County adults consumed daily.

	5 or more servings	3-4 servings	1-2 servings	0 servings
Fruit	1%	11%	79%	9%
Vegetables	5%	18%	73%	4%
Sugar-sweetened beverages	2%	4%	29%	65%
Caffeinated beverages	9%	18%	56%	17%

- Seventy-eight percent (78%) of adults ate out in a restaurant or brought home take-out at least once in a typical week, 3% of whom did so for five or more meals per week.

- Geauga County adults reported the following reasons they chose the types of food they ate:
  - Taste/enjoyment (74%)
  - Healthiness of food (64%)
  - Ease of preparation/time (47%)
  - Cost (43%)
  - Nutritional content (36%)
  - What their family prefers (31%)
  - Food they were used to (30%)
  - Availability (30%)
  - Calorie content (30%)
  - If it is organic (18%)
  - If it is genetically modified (15%)
  - Artificial sweetener content (9%)
  - Healthcare provider's advice (4%)
  - If it is gluten free (4%)
  - If it is lactose free (4%)
  - Other food sensitivities (2%)
  - Availability of food at the food pantry (2%)
  - Limitations due to dental issues (1%)
  - Limitations set by WIC (<1%)
  - Other reasons (4%)

- Adults reported the following barriers to consuming fruits and vegetables:
  - Too expensive (9%)
  - Did not like the taste (5%)
  - No access (3%)
  - Did not know how to prepare (1%)
  - Transportation (1%)
  - Other barriers (1%)
  - No variety (<1%)

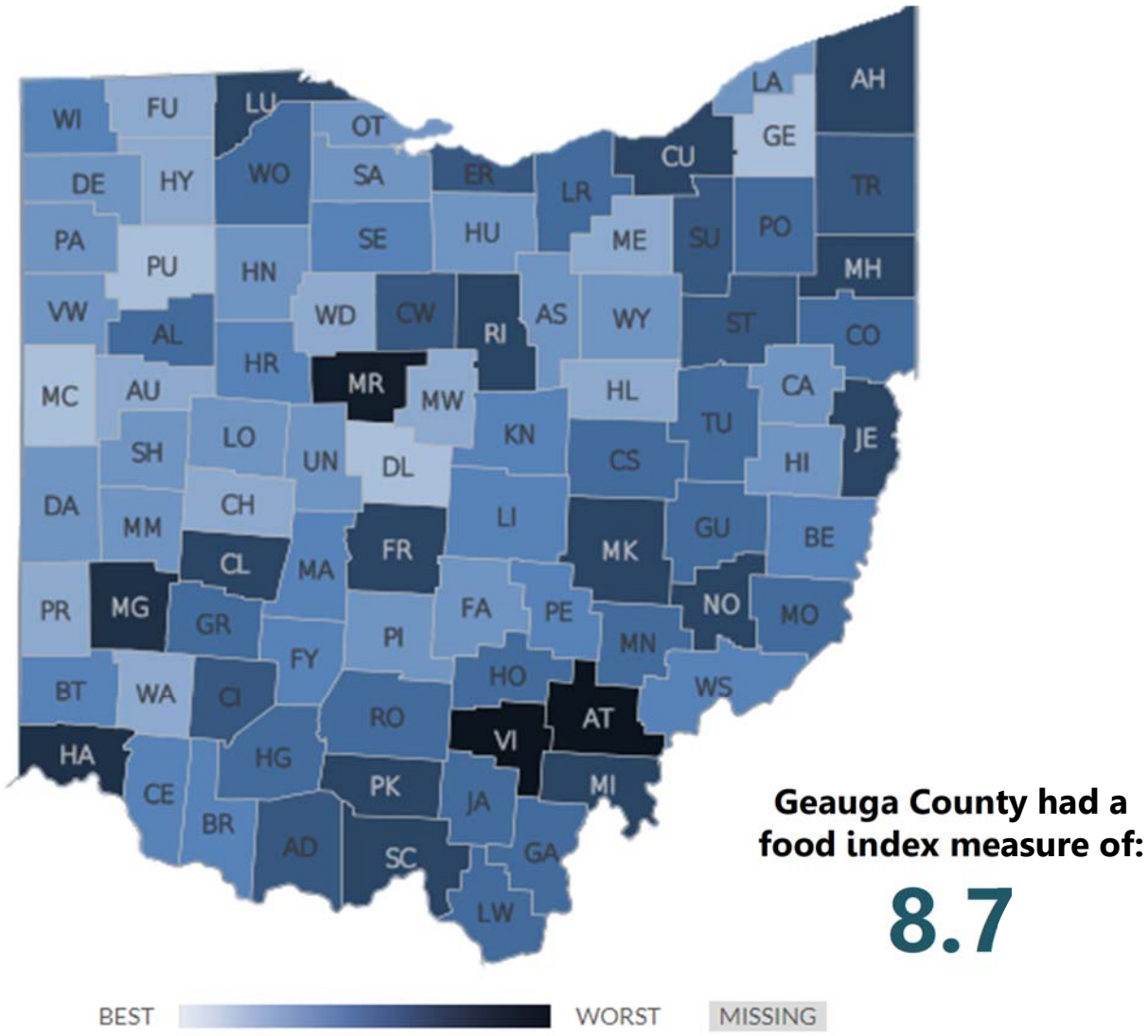
Summary of the American Cancer Society (ACS) Guidelines on Nutrition and Physical Activity

1. *Achieve and maintain a healthy weight throughout life*
   - Be as lean as possible throughout life without being underweight.
   - Avoid excess weight gain at all ages. For those who are overweight or obese, losing even a small amount of weight has health benefits and is a good place to start.
   - Get regular physical activity and limit intake of high calorie foods and drinks as keys to help maintain a healthy weight.
2. *Be physically active*
   - **Adults**: Get at least 150 minutes of moderate intensity or 75 minutes of vigorous intensity activity each week (or a combination of these), preferably spread throughout the week.
   - **Children and teens**: Get at least 1 hour of moderate or vigorous intensity activity each day, with vigorous activity on at least 3 days each week.
   - Limit sedentary behavior such as sitting, lying down, watching TV, and other forms of screen-based entertainment.
   - Doing some physical activity above usual activities, no matter what one's level of activity, can have many health benefits.
3. *Eat a healthy diet, with an emphasis on plant foods*
   - Choose foods and drinks in amounts that help you get to and maintain a healthy weight.
   - Limit how much processed meat and red meat you eat.
   - Eat at least 2½ cups of vegetables and fruits each day.
   - Choose whole grains instead of refined grain products.

(Source: American Cancer Society, ACS Guidelines for Nutrition and Physical Activity, updated April 13, 2017)

The Food Environment Index measures the quality of the food environment in a county on a scale from zero to 10 (zero being the worst value in the nation, and 10 being the best). The two variables used to determine the measure are limited access to healthy foods (i.e. the percentage of the population who are low income and do not live close to a grocery store) & food insecurity (i.e. the percentage of the population who did not have access to a reliable source of food during the past year).

- The food environment index in Geauga County is 8.7.
- The food environment index in Ohio is 6.6.



(Source: USDA Food Environment Atlas, as compiled by County Health Rankings 2018)

Health Behaviors: Tobacco Use

Key Findings

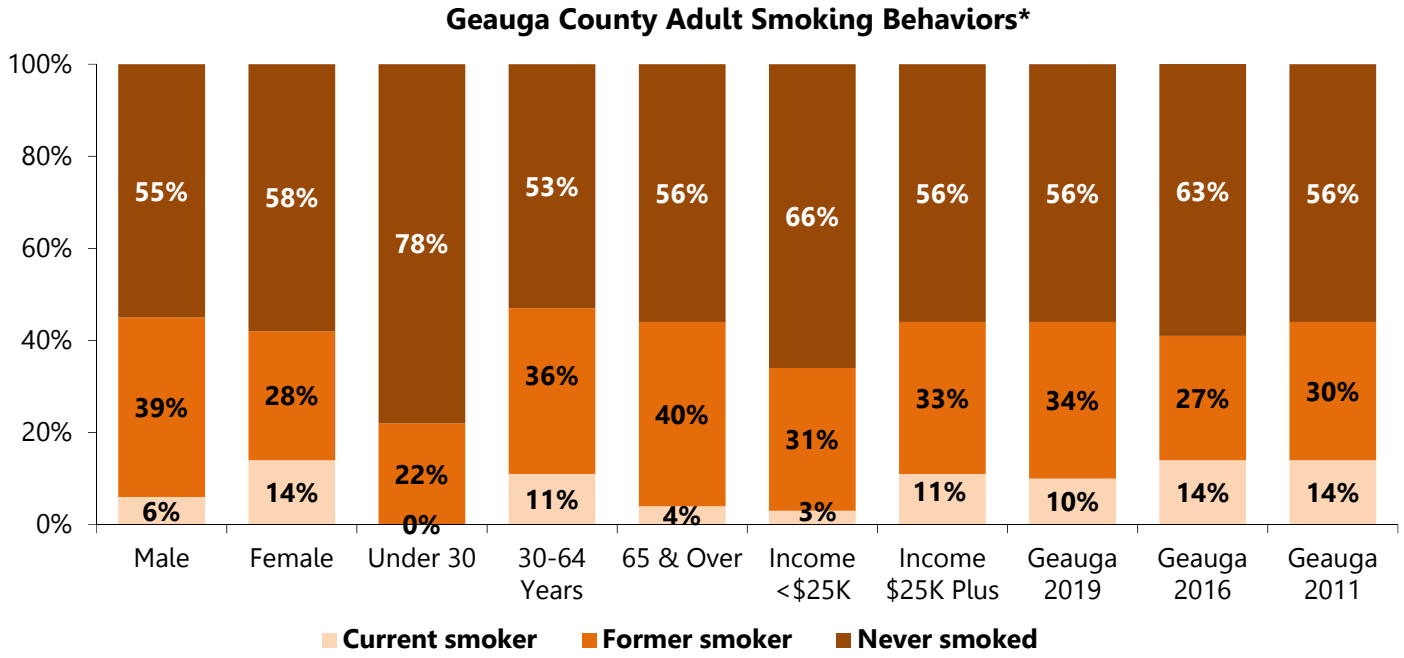
Ten percent (10%) of Geauga County adults were current smokers, and 34% were considered former smokers. Six percent (6%) of adults used e-cigarettes in the past year. Twenty-three percent (23%) of adults did not know if e-cigarette vapor was harmful.

6,786 Geauga County adults were current smokers.

Tobacco Use Behaviors

- Ten percent (10%) of Geauga County adults were current smokers (those who indicated smoking at least 100 cigarettes in their lifetime and currently smoked some or all days).
- Thirty-four percent (34%) of adults indicated that they were former smokers (smoked 100 cigarettes in their lifetime and now do not smoke).
- Forty-one percent (41%) of current smokers reported that they had stopped smoking for at least one day in the past year because they were trying to quit smoking.
- Geauga County adult smokers were more likely to have:
  - Had children under the age of 18 (54%)
  - Been married (47%)
  - Rated their overall health as fair or poor (14%)
  - Incomes greater than $25,000 (11%)
  - Been ages 30 to 64 (11%)
- Six percent (6%) of Geauga County adults were current e-cigarette smokers (those who indicated vaping on some or all days).
- Twelve percent (12%) of adults indicated that they were former e-cigarette smokers (used e-cigarettes in their lifetime and now do not use e-cigarettes).
- Geauga County adults used the following tobacco products in the past year:
  - Cigarettes (16%)
  - E-cigarettes or other electronic vapor products (6%)
  - Chewing tobacco, snuff, snus (3%)
  - Cigars (3%)
  - Little cigars (1%)
  - Pipes (<1%)
- Six percent (6%) of adults used more than one tobacco product in the past year.
- Seventy percent (70%) of adults believed that e-cigarette vapor was harmful to themselves; 63% believed that e-cigarette vapor was harmful to others; 62% of adults believed e-cigarette vapor was harmful to children; and 1% did not believe it was harmful to anyone. More than one-fifth (23%) of adults did not know if e-cigarette vapor was harmful to themselves or others.
- Fifty-nine percent (59%) of adults had used e-cigarettes/vapes in the past 12 months. Of those who used in the past 12 months, they reported putting the following in them:
  - E-liquid or e-juice with nicotine (54%)
  - E-liquid or e-juice without nicotine (20%)
  - Marijuana or THC in the e-liquid (7%)

The following graph shows the percentage of Geauga County adults' smoking behaviors. An example of how to interpret the information in the graph includes: 10% of all adults were current smokers, 34% of all adults were former smokers, and 56% had never smoked.



**Respondents were asked: "Have you smoked at least 100 cigarettes in your entire life? If yes, do you now smoke cigarettes every day, some days or not at all?"*

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Current smoker (currently smoke some or all days)	14%	10%	10%	21%	17%
Former smoker (smoked 100 cigarettes in lifetime & now do not smoke)	30%	27%	34%	24%	25%
Tried to quit smoking (on at least one day in the past year)	42%	51%	41%	N/A	N/A
Current e-cigarette user (vaped on some or all days)	N/A	N/A	6%	5%	5%
Former e-cigarette user	N/A	N/A	12%	19%	16%

N/A – Not Available

Health Behaviors: Alcohol Consumption

Key Findings

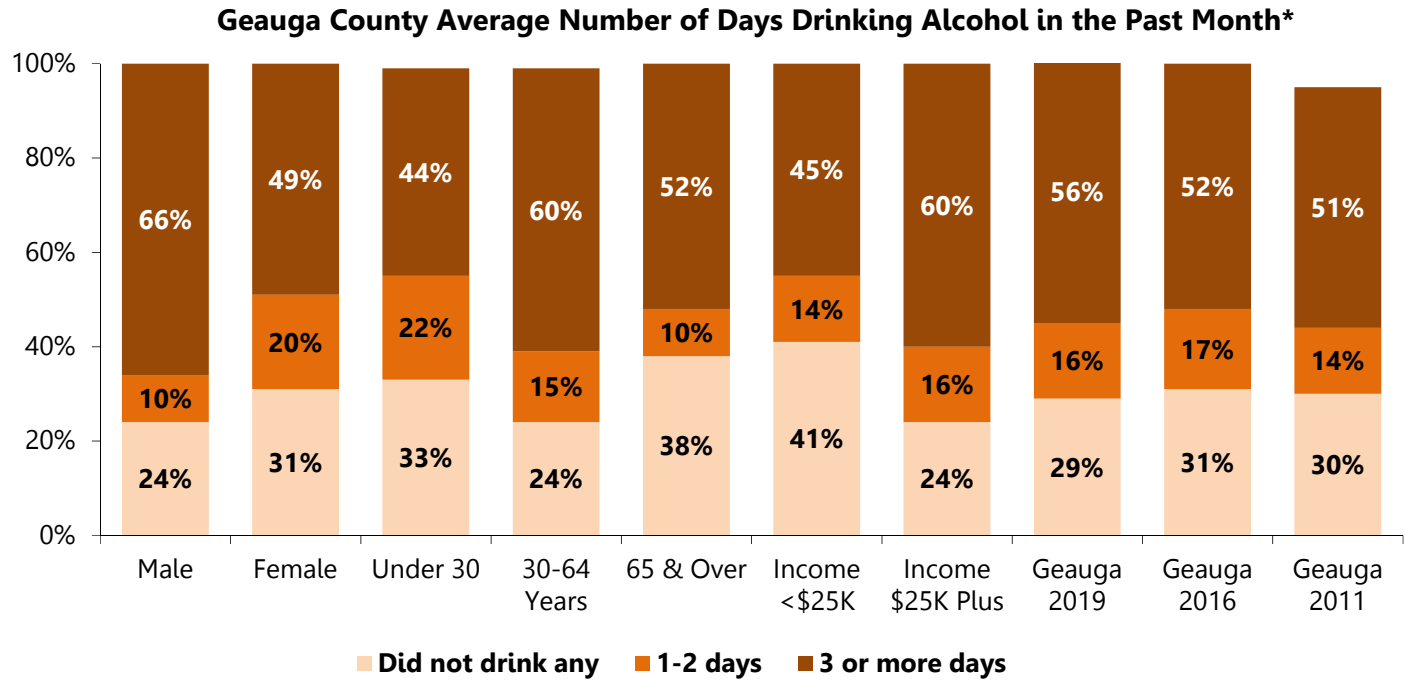
Seventy-one percent (71%) of Geauga County adults had at least one alcoholic drink in the past month and would be considered current drinkers. Nearly one-quarter (24%) of all adults reported they had five or more alcoholic drinks (for males) or four or more drinks (for females) on an occasion in the last month and would be considered binge drinkers.

16,287 of Geauga County adults were binge drinkers.

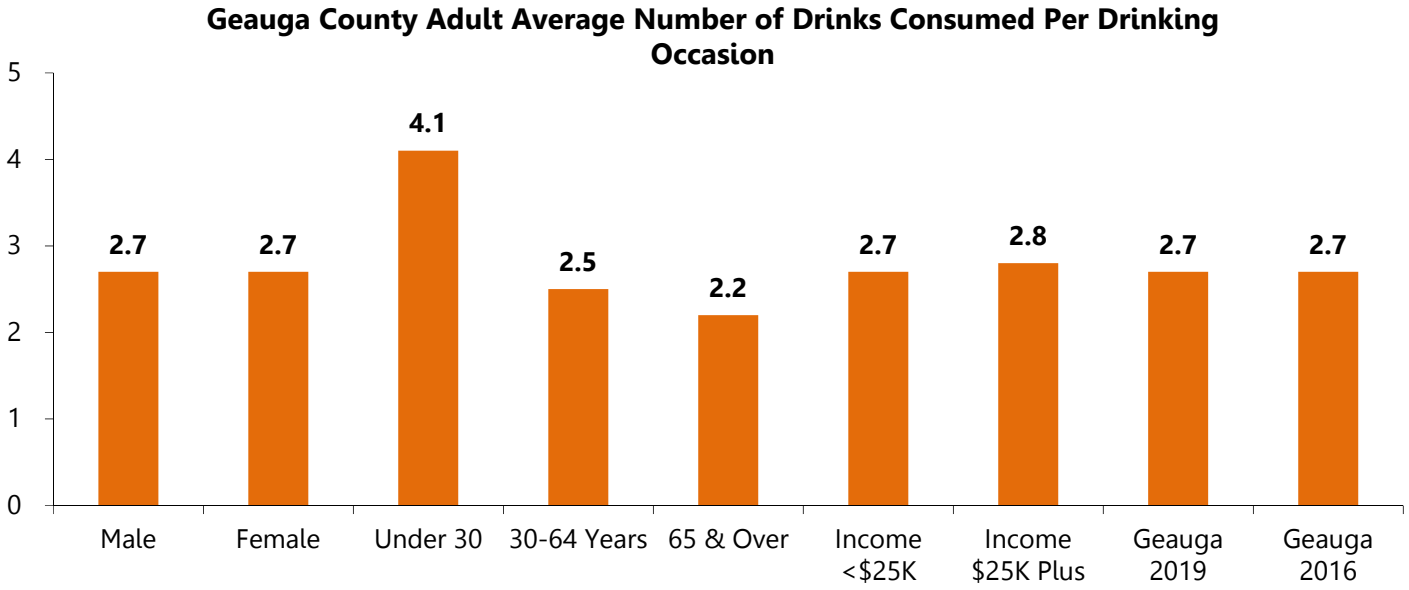
Alcohol Consumption

- Seventy-one percent (71%) of Geauga County adults had at least one alcoholic drink in the past month, increasing to 76% of those with incomes more than $25,000.
- Of those who drank, Geauga County adults drank 2.7 drinks on average.
- Nearly one-quarter (24%) of Geauga County adults reported they had five or more alcoholic drinks (for males) or 4 or more drinks (for females) on an occasion in the last month and would be considered binge drinkers. Of those who drank in the past month, 36% had at least one episode of binge drinking.
- Five percent (5%) of adults reported driving after having perhaps too much to drink in the past 30 days.
- Geauga County adults reported the following reasons for drinking alcohol:
  - Taste/enjoyment (54%)
  - Social events (37%)
  - Helps them relax/relieve stress (37%)
  - It's normal/part of the culture (17%)
  - They like the way it makes them feel (16%)
  - Social expectations (7%)
  - Their parents drank alcohol (4%)
  - Not much else to do (3%)
  - Other reasons (4%)
- Five percent (5%) of Geauga County adults used a program to help with an alcohol related problem for themselves or a loved one. Reasons for not using a program to help with an alcohol problem included the following:
  - Had not thought of it (4%)
  - Stigma of seeking alcohol services (1%)
  - Did not want to miss work (<1%)
  - Did not want to get in trouble (<1%)
  - Fear (<1%)
  - Programs were always full (<1%)
  - Other reasons (5%)
- Eighty-nine percent (89%) of adults indicated a program to help with an alcohol related problem was not needed.

The following graph shows the percentage of Geauga County adults who consumed alcohol and the amount consumed on average in the past month. An example of how to interpret the information shown in the graph includes: 29% of all adults did not drink alcohol in the past month, including 24% of males and 31% of females.



**Percentages may not equal 100% as some respondents answered, "Don't Know"*



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Current drinker (drank alcohol at least once in the past month)	65%	69%	71%	54%	55%
Binge drinker (consuming more than four [women] or five [men] alcoholic beverages on a single occasion in the past 30 days)	18%	26%	24%	19%	17%
Drove after having perhaps too much alcohol to drink	6%	5%	5%	4%**	4%**

**2016 BRFSS*
***2015 BRFSS Data*

Economic Costs of Excessive Alcohol Use

- Excessive alcohol consumption cost the United States $249 billion in 2010. This cost amounts to about $2.05 per drink, or about $807 per person.
- Costs due to excessive drinking largely resulted from loss in workplace productivity (72% of the total cost), health care expenses (11%), and other costs due to a combination of criminal justice expenses, motor vehicle crash costs, and property damage.
- Excessive alcohol use cost states and DC a median of 3.5 billion in 2010, ranging from $488 million in North America to $35 billion in California.
  - Excessive alcohol consumption cost Ohio $8.5 billion in 2010. This cost amounts to $2.10 per drink or $739 per person.
- Binge drinking, defined as consuming 4 or more drinks per occasion for women or 5 or more drinks per occasion for men, was responsible for 77% of the cost of excessive alcohol use in all states and DC.
- About $2 of every $5 of the economic costs of excessive alcohol use were paid by federal, state, and local governments.

(Source: CDC, Alcohol and Public Health – Excessive Drinking, updated July 13, 2018)

Health Behaviors: Drug Use

Key Findings

Four percent (4%) of Geauga County adults had used recreational marijuana or hashish during the past 6 months. Five percent (5%) of adults had used medication not prescribed for them or took more than prescribed to feel good or high and/or more active or alert during the past six months.

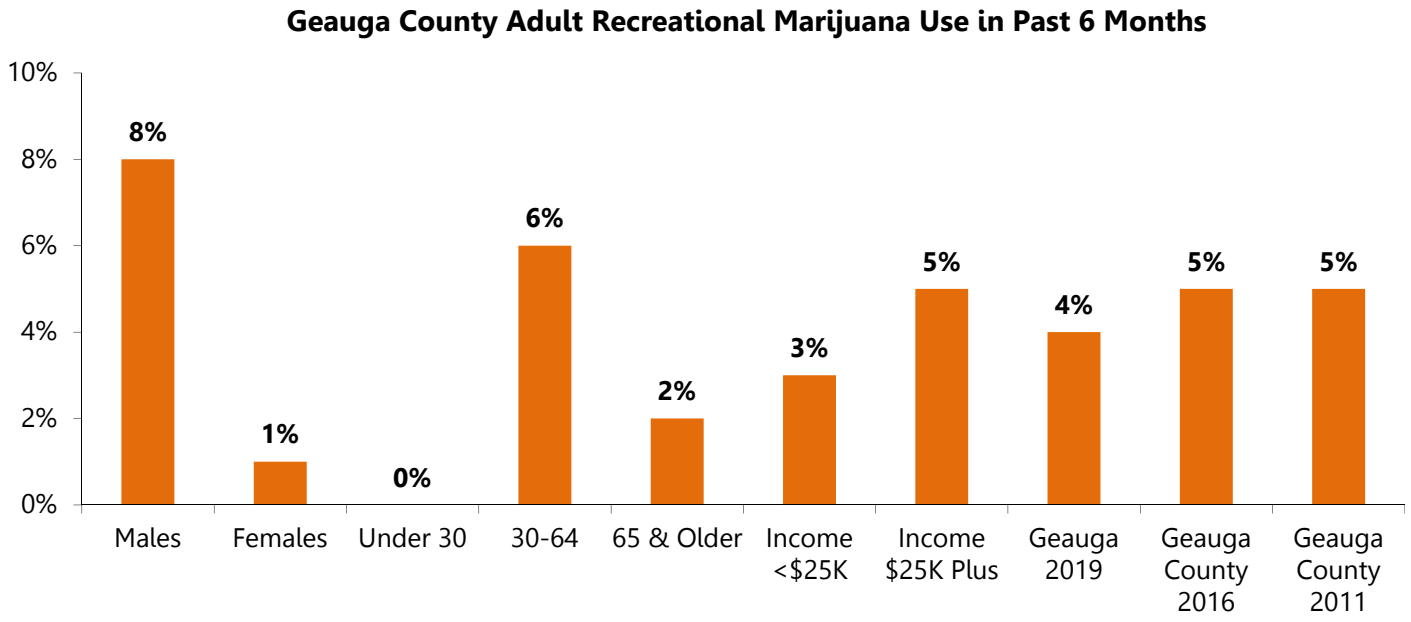
2,714 Geauga County adults used recreational marijuana or hashish in the past 30 days.

Drug Use

- Geauga County adults reported using the following marijuana products in the past six months:
  - Wax, oil, or edibles with THC (5%)
  - Marijuana to self-medicate (4%)
  - Recreational marijuana or hashish (4%)
  - Marijuana recommended by a doctor (1%)

- Adults reported that themselves, an immediate family member, or someone in their household used the following substances in the past 6 months:
  - Cocaine, crack, or coca leaves (3%)
  - Amphetamine, methamphetamine, or speed (3%)
  - Heroin or fentanyl (3%)
  - Inhalants (3%)
  - LSD (3%)
  - Synthetic marijuana or K2 (2%)
  - Inappropriate use of over-the-counter medications (2%)
  - Bath salts (2%)
  - Ecstasy or GBH (2%)

The following graph indicates adult recreational marijuana or hashish use in the past 6 months. An example of how to interpret the information in the graph includes: 4% of Geauga County adults used recreational marijuana or hashish in the past 6 months, including 8% of males and 1% of females.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Adults who used recreational marijuana or hashish in the past 6 months	5%	5%	4%	N/A	N/A
Adults who misused prescription medication in the past 6 months	5%	5%	5%	N/A	N/A

N/A – Not Available

Prescription Drug Misuse

- In the past 6 months, 5% of Geauga County adults had used medications not prescribed for them or they took more than prescribed to feel good, high, and/or more active or alert, increasing to 10% of those with incomes less than $25,000.

- Adults reported that themselves, an immediate family member, or someone in their household took the following medications not prescribed to them to feel good, high, and/or more active or alert during the past 6 months:
  - Ritalin, Adderall, Concerta, or other ADHD medication (4%)
  - Tranquilizers such as Valium or Xanax (4%)
  - Steroids (4%)
  - Tramadol/Ultram (3%)
  - OxyContin (3%)
  - Codeine, Demerol, Morphine, Percocet, Dilaudid, or Fentanyl (3%)
  - Vicodin (2%)
  - Neurontin (2%)
  - Suboxone or methadone (2%)

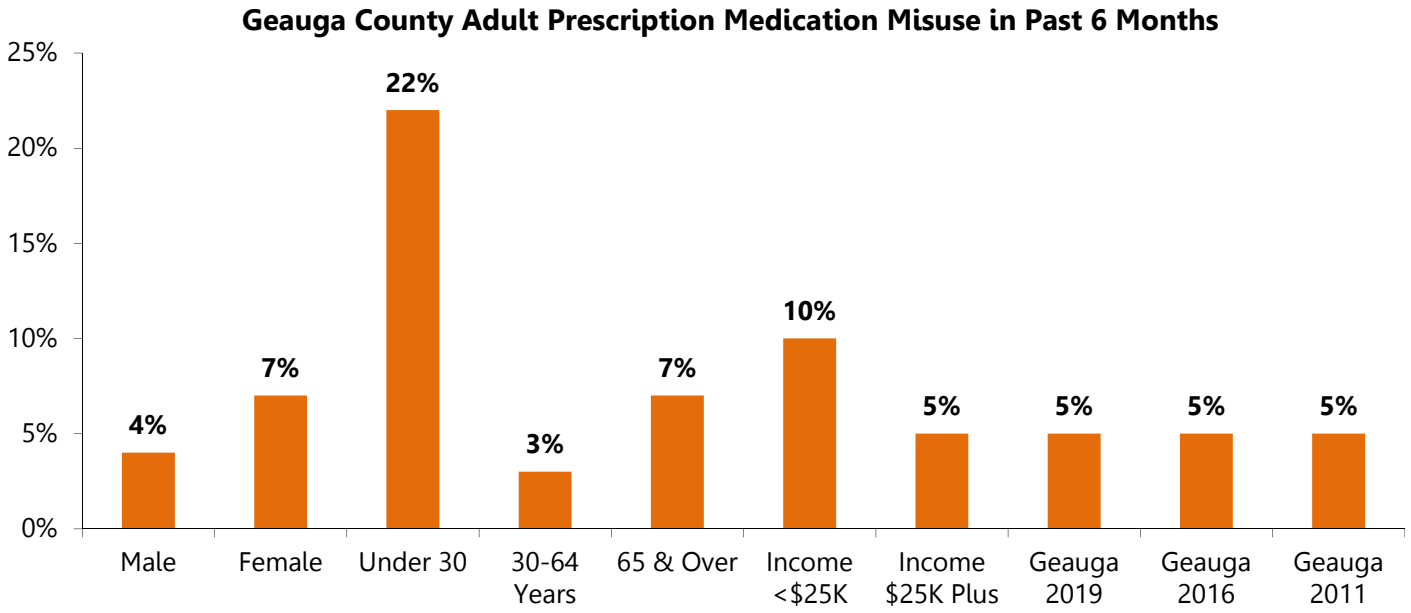
3,393 Geauga County adults used medications not prescribed for them or took more than prescribed to feel good, high, and/or more active or alert.

- Adults indicated they did the following with their unused prescription medication:
  - Took them as prescribed (23%)
  - Threw them in the trash (19%)
  - Kept them (18%)
  - Took them to a medication collection program (17%)
  - Took them to the sheriff's office (11%)
  - Flushed them down the toilet (10%)
  - Kept them in a locked cabinet (4%)
  - Took them to Drug Take Back Days (2%)
  - Gave them away (1%)
  - Used drug deactivation pouches (1%)
  - Some other destruction method (1%)

- One percent (1%) of Geauga County adults used a program to help with a drug related problem for themselves or a loved one. Reasons for not using such a program included the following:
  - Had not thought of it (1%)
  - Could not afford to go (1%)
  - Insurance did not cover it (1%)
  - Did not want to get in trouble (1%)
  - Stigma of seeking drug services (<1%)
  - Other reasons (1%)

- Ninety-five percent (95%) of adults indicated they did not need a program or service to help with a drug related problem.

The following graph indicates adult medication misuse in the past 6 months. An example of how to interpret the information in the graph includes: 5% of Geauga County adults misused prescription drugs in the past 6 months, including 4% of males and 7% of females.



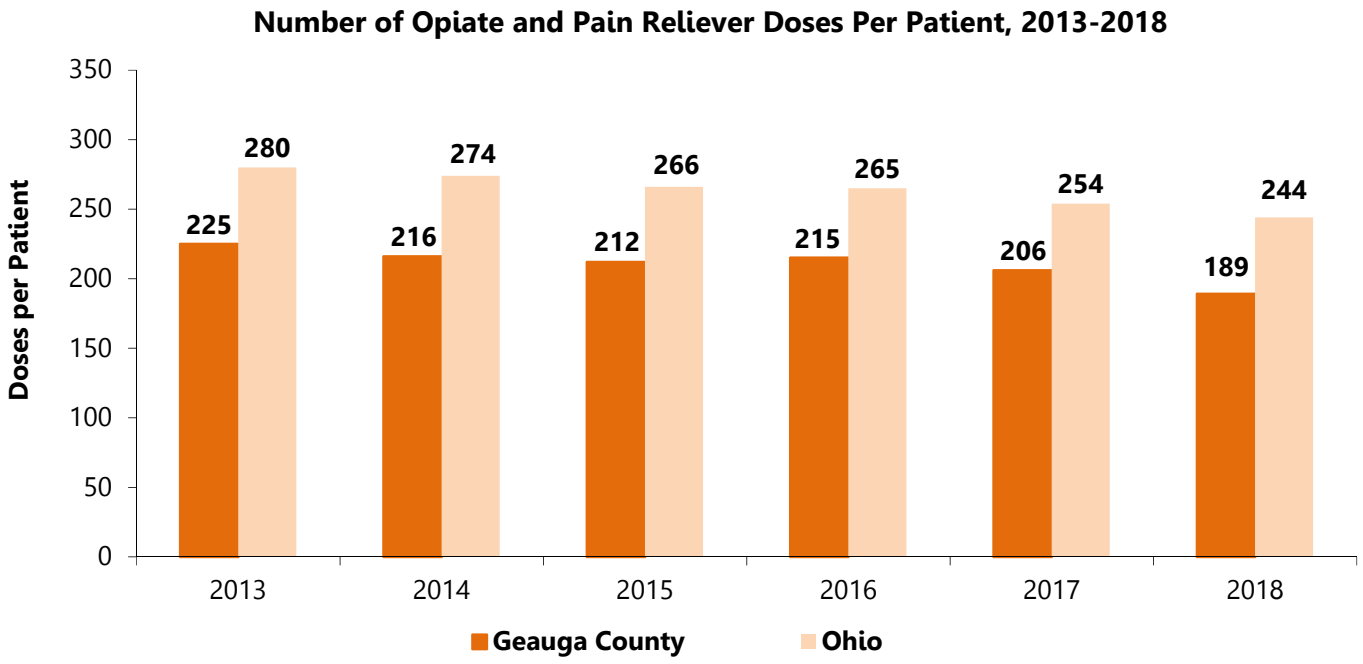
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

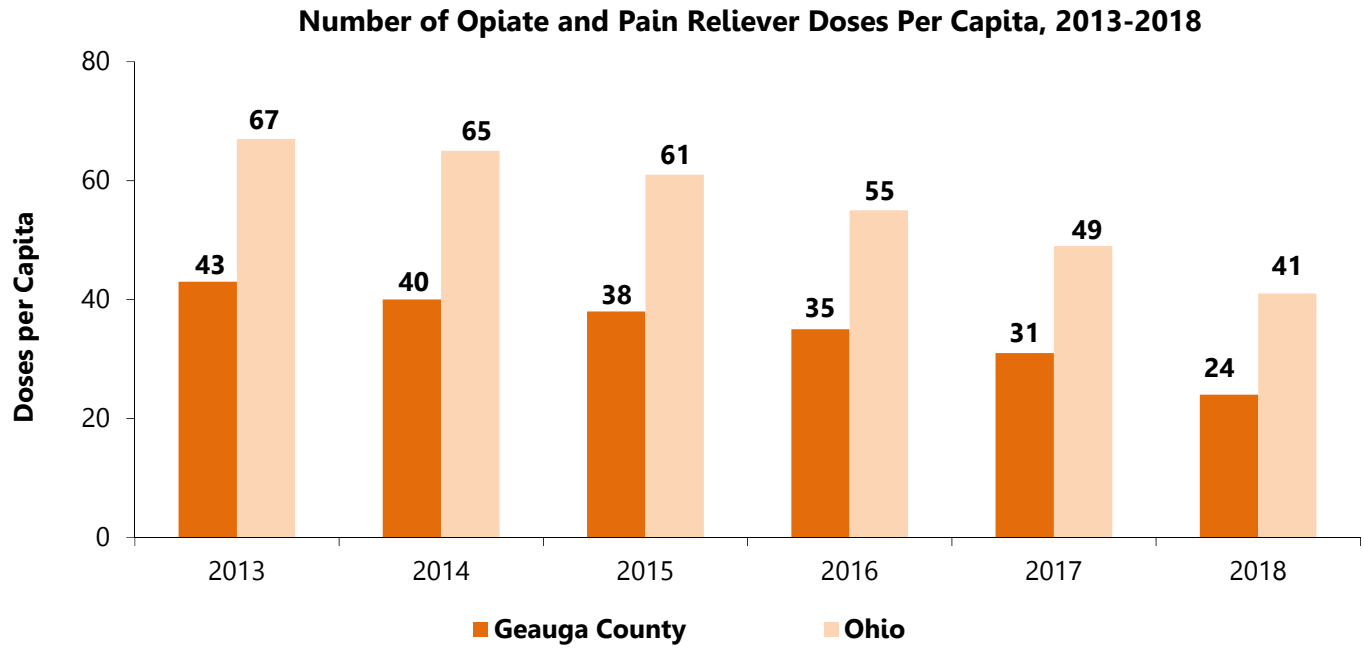
Ohio Automated Rx Reporting System (OARRS)

- OARRS has been collecting information from all Ohio-licensed pharmacies and Ohio personal licensed prescribers regarding outpatient prescriptions for controlled substance since 2006.
  - All data reported is updated every 24 hours and is maintained in a secure database.
- OARRS aims to be a reliable tool in addressing prescription drug diversion and abuse.
- With many features such as a patient care tool, epidemic early warning system, drug diversion and insurance fraud investigation tool, OARRS is the only statewide electronic database that helps prescribers and pharmacists avoid potential life-threatening drug interactions.
  - OARRS also works in limiting patients who "doctor shop" which refers to individuals fraudulently obtaining prescriptions from multiple health care providers for the same or multiple prescription for abuse or illegal distribution.
- Additionally, OARRS is also used for investigating and identifying health care professionals with continual inappropriate prescribing and dispensing to patients, and then aids in law enforcement cases against such acts.

(Source: Ohio Automated RX Reporting System; What is OARRS?, updated August 15, 2017)

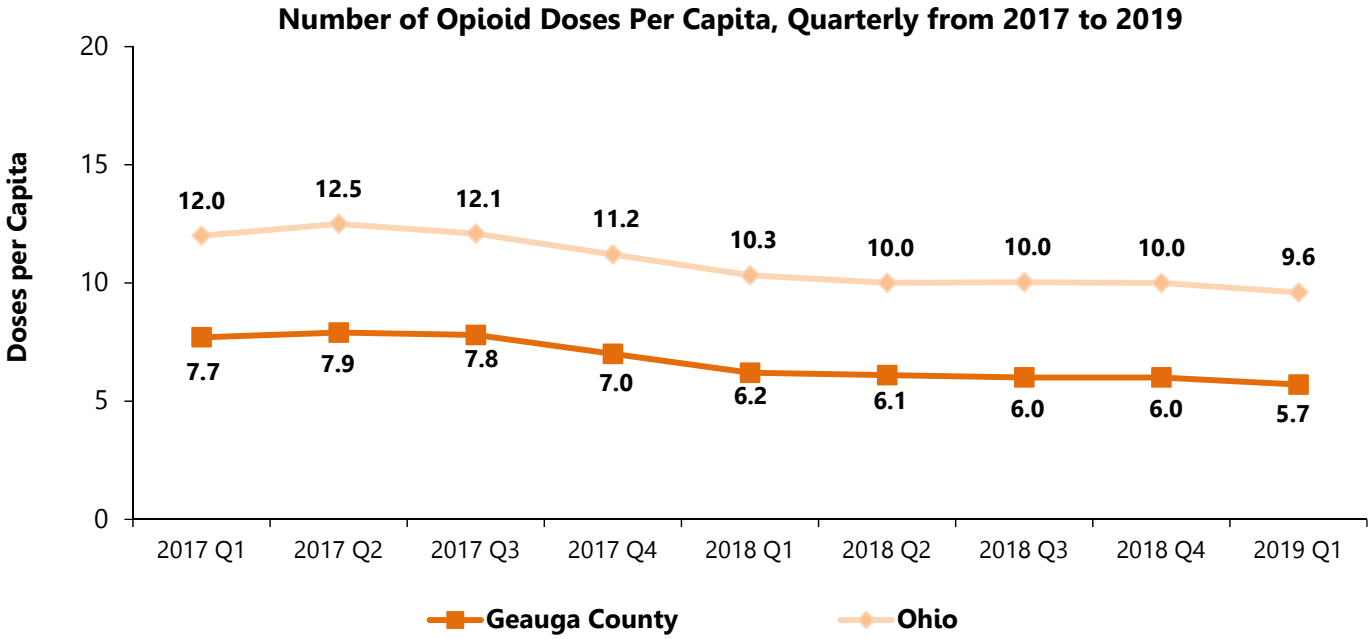
The following graphs are data from the Ohio Automated Prescription Reporting System (OARRS) indicating Geauga County and Ohio opiate and pain reliever doses per patient, as well as doses per capita.

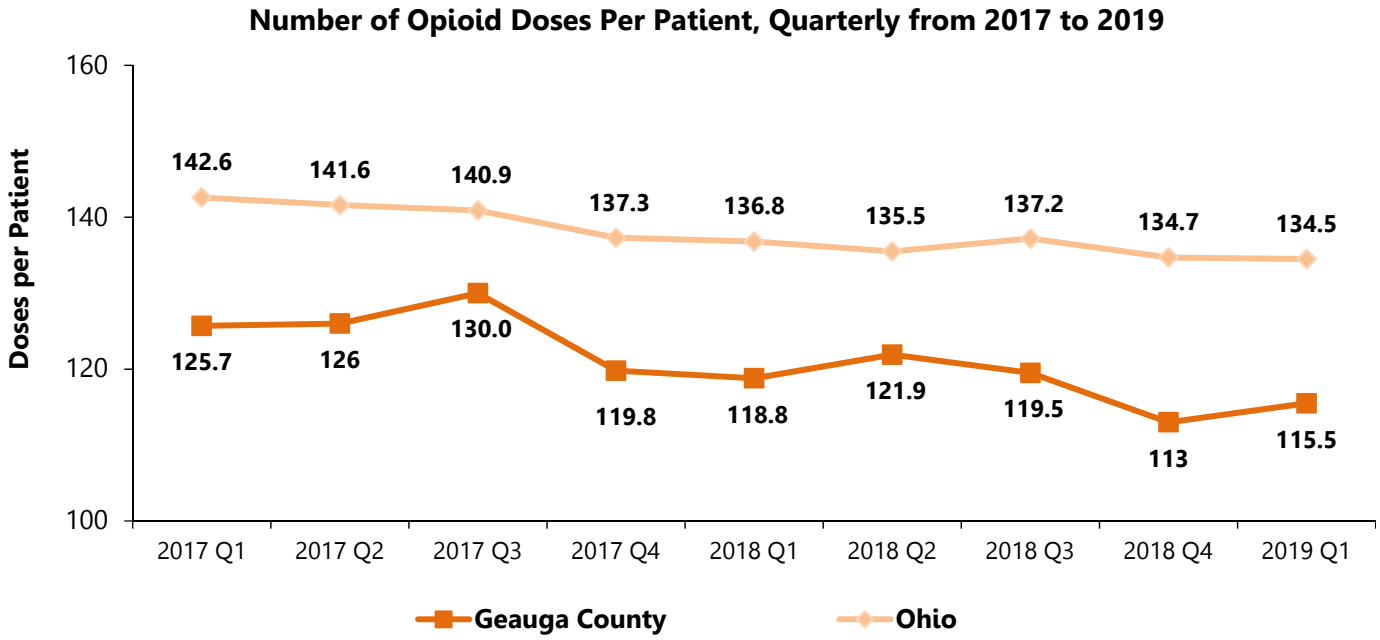




(Source for graphs: Ohio's Automated Rx Reporting System, 2013-2018, retrieved 8/2/19)

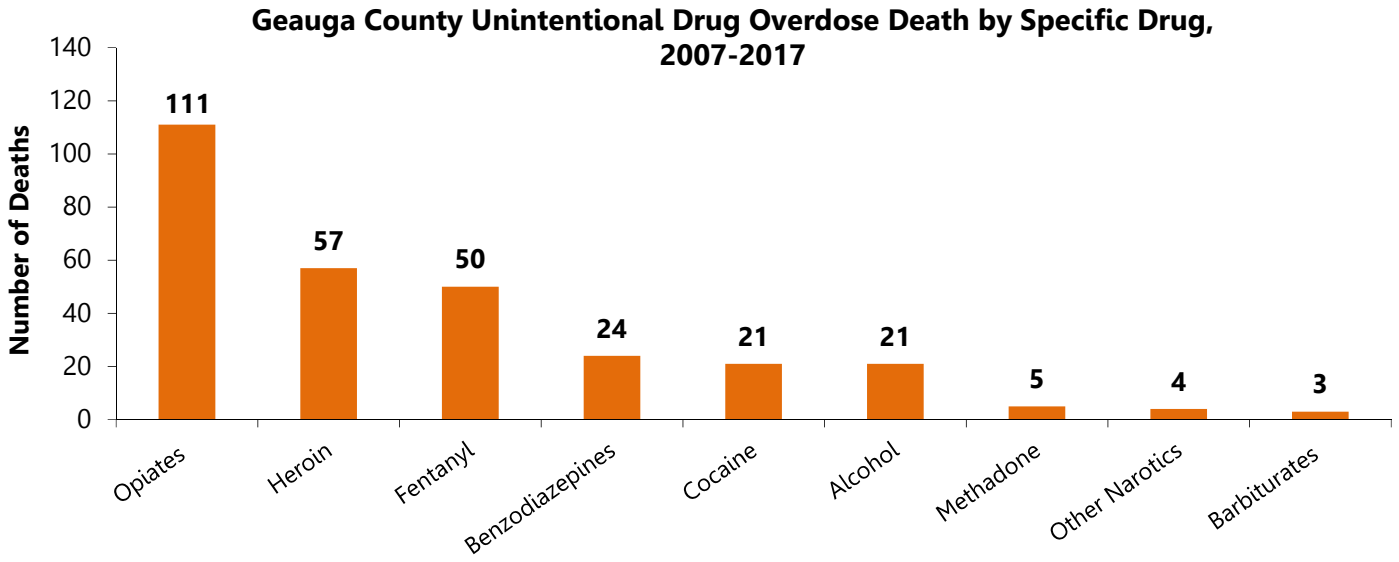
The following graphs show Geauga County and Ohio quarterly opiate and pain reliever doses per patient and doses per capita.





(Source for graphs: Ohio's Automated Rx Reporting System, 2017-2019, retrieved 8/2/19)

The following graph shows the number of unintentional drug overdose deaths by specific drug from 2007 to 2017 in Geauga County.



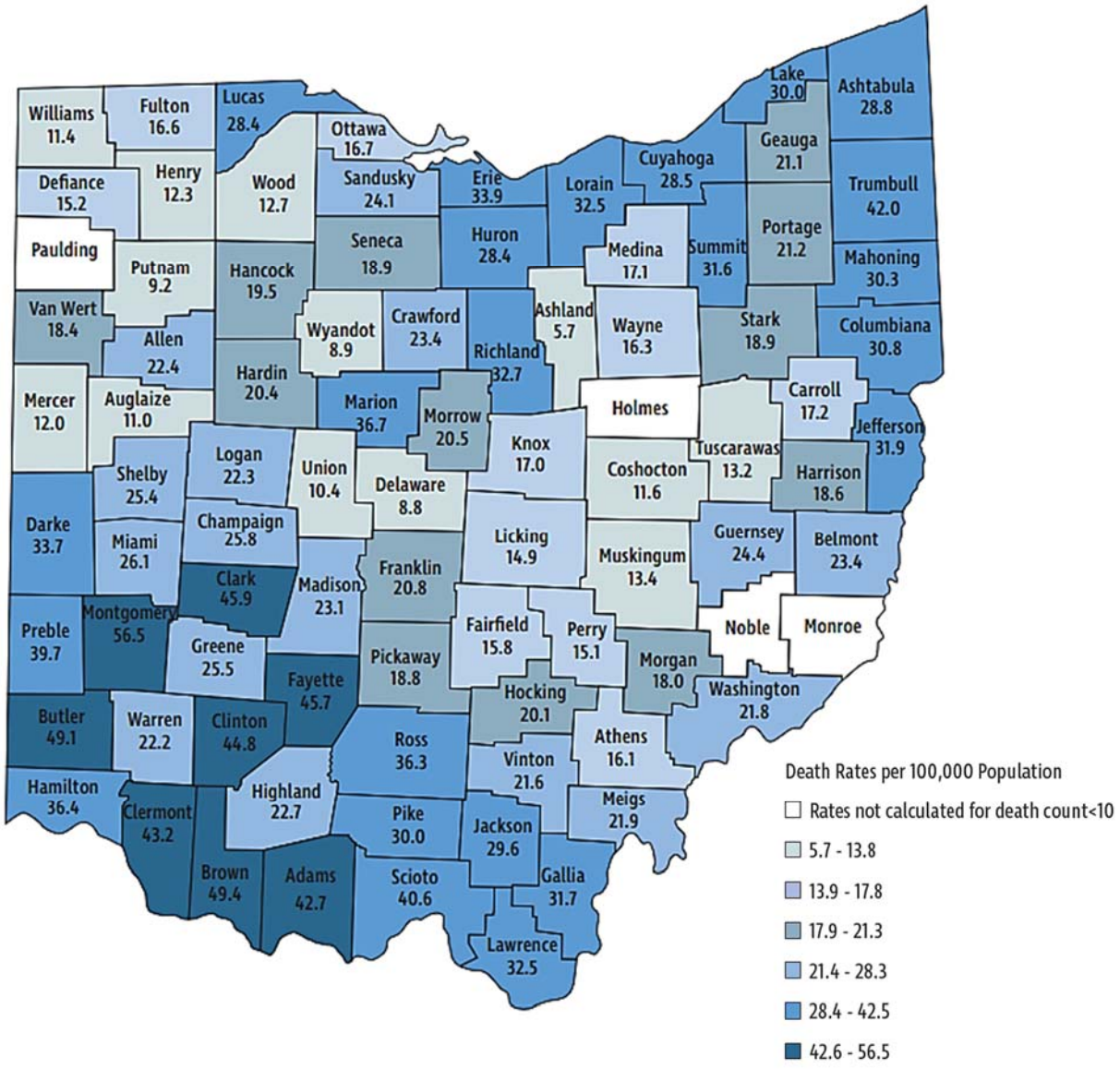
(Source: Ohio Public Health Data Warehouse, 2007-2017, updated 8/2/19)

Disposing of Prescription Medications Properly

- Consumers and caregivers should remove expired, unwanted, or unused medicines from their home as quickly as possible to help reduce the chance that others accidentally take or intentionally misuse the unneeded medicine, and to help reduce drugs from entering the environment.
- It should be noted that a small number of medicines have specific directions to immediately flush them down the toilet when they are no longer needed, and a take-back option is not readily available.
- Your best choices for disposal of expired, unwanted, or unused medicines are:
  - **Find a medication collection box**
    - Some sites in your community may offer drop boxes to assist consumers in safely disposing of their unused medicines.
  - **Take medicines to a Drug Enforcement Administration (DEA) authorized collection site**
    - In your community, authorized collection sites may be in retail pharmacies, hospital or clinic pharmacies, or law enforcement facilities.
  - **Drop them off during a National Prescription Drug Take Back Day event**
    - The U.S. DEA periodically hosts events where temporary collection sites are set up in communities nationwide for safe disposal of prescription drugs.
    - Law enforcement agencies may also sponsor medicine take-back events in your community.
  - **Use at-home drug deactivation pouches (e.g., Deterra® Pouches)**
    - Deterra Pouches will deactivate any organic medications including opioids.
    - Deterra works on pills, patches, and liquids allowing them to be absorbed by activated carbon, rendering them neutralized and non-retrievable.
  - **Disposing medicines in the household trash**
    - If no take-back programs or DEA-authorized collectors are available in your area, and there are no specific disposal instructions, you can follow these steps to dispose of most medicines in the household trash:
      1. Mix medicines (do not crush tablets or capsules) with an unpalatable substance such as dirt, cat litter, or used coffee grounds.
      2. Place the mixture in a container such as a sealed plastic bag.
      3. Throw the container in your household trash.
      4. Delete all personal information on the prescription label of the empty pill bottles or medicine packaging, then dispose of the container.

(Sources: U.S. Food & Drug Administration, Disposal of Unused Medicines: What You Should Know & Deterra drug deactivation system, FAQ)

The following map illustrates the average age-adjusted unintentional drug overdose death rate per 100,000 population, by county from 2012-2017. Geauga's age adjusted unintentional drug overdose death rate was 21.1 from 2012-2017.



(Source: Ohio Department of Health, 2017 Ohio Drug Overdose Data: General Findings)

Heroin

- Heroin is an opioid drug that is synthesized from morphine, a naturally occurring substance extracted from the seed pod of the Asian opium poppy plant.
- Nearly 80% of Americans using heroin (including those in treatment) reported misusing prescription opioids prior to using heroin.
- Heroin overdoses frequently involve a suppression of breathing. This can affect the amount of oxygen that reaches the brain, a condition called hypoxia.
- Heroin abuse is associated with a number of serious health conditions, including fatal overdose, spontaneous abortion, and infectious diseases such as hepatitis and HIV.
- Chronic users may develop collapsed veins, infection of the heart lining and valves, abscesses, constipation and gastrointestinal cramping, and liver or kidney disease.

(Source: National Institute on Drug Abuse, Drug Facts: Heroin, Updated on June 2018)

Felony Cases and Drug Arrests, 2018

- Ohio State Highway Patrol (OSHP) Troopers made 16,956 total drug arrests during 2018- a 2% increase from 2017 and a 20% jump over the previous 3-year average (2015-2017). Total drug arrests in 2018 were 76% higher than they were in 2013.

- Of the drug arrests made in 2018, 4,732 (28%) included one or more felony drug charges. The number of felony drug arrests rose 2% from 2017 and showed a 21% increase over the previous 3-year average (2015-2017).

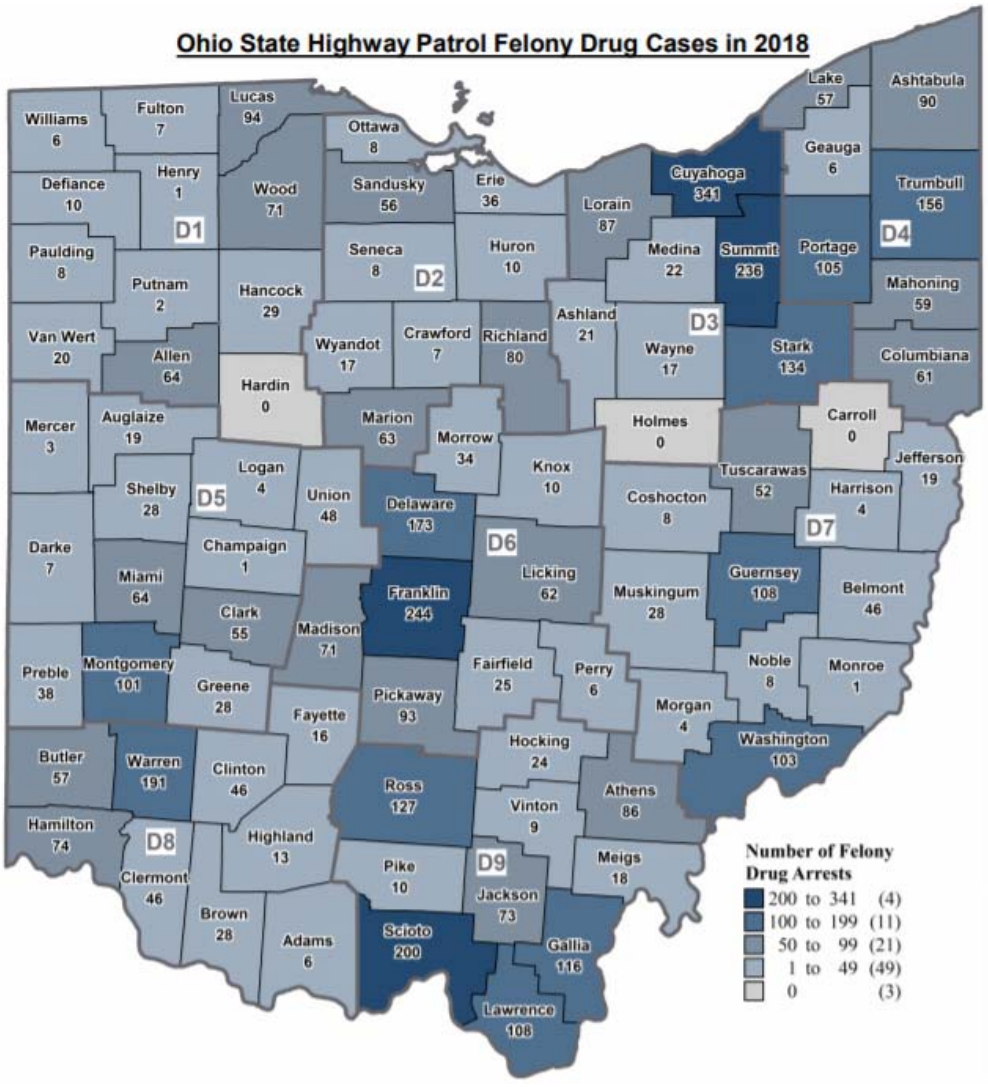
- During 2018, seizures of several types of drugs surpassed totals from 2017. Quantities of methamphetamine (+197%), fentanyl (+151%), cocaine (+94%) and heroin (+78%) seized increased substantially. Scheduled drug seizures of stimulants (+51%) also saw considerable increases. Seizures of opiate pills continued to decline, down 18% from 2017 and 60% from a 5-year peak in 2016

- Traffic stops by troopers led to several historic drug seizures in 2018. Troopers recorded the two largest methamphetamine seizures (141.8 lbs. and 94.6 lbs.) in Patrol history. Traffic stops also led to three of the top ten heroin seizures on record including, potentially, the largest seizure ever.

OSHP felony cases by type[1]	
Homicide/Death	45
Robbery/Burglary	7
Larceny	686
Assault	2,170
False pretense[2]	185
Vice[3]	4,768
Property crimes	153
Other investigations	307
Total:	8,321

OSHP drug arrests	
Total drug arrests	16,956
Felony drug cases	4,732

OSHP drug seizures in grams	
Marijuana	2,181,948
Cocaine	229,521
Methamphetamine	194,682
Heroin	133,383
OSHP scheduled pill seizures	
Opiate	25,475
Stimulant	4,700
Depressant	8,210
Hallucinogen	736



(Source: Ohio State Highway Patrol, Felony Cases and Drug Arrests, 2018)

Health Behaviors: Sexual Behavior

Key Findings

Seventy percent (70%) of Geauga County adults had sexual intercourse in the past year. Five percent (5%) of adults had more than one partner. Twenty-eight percent (28%) of adults had been tested for HIV in their lifetime.

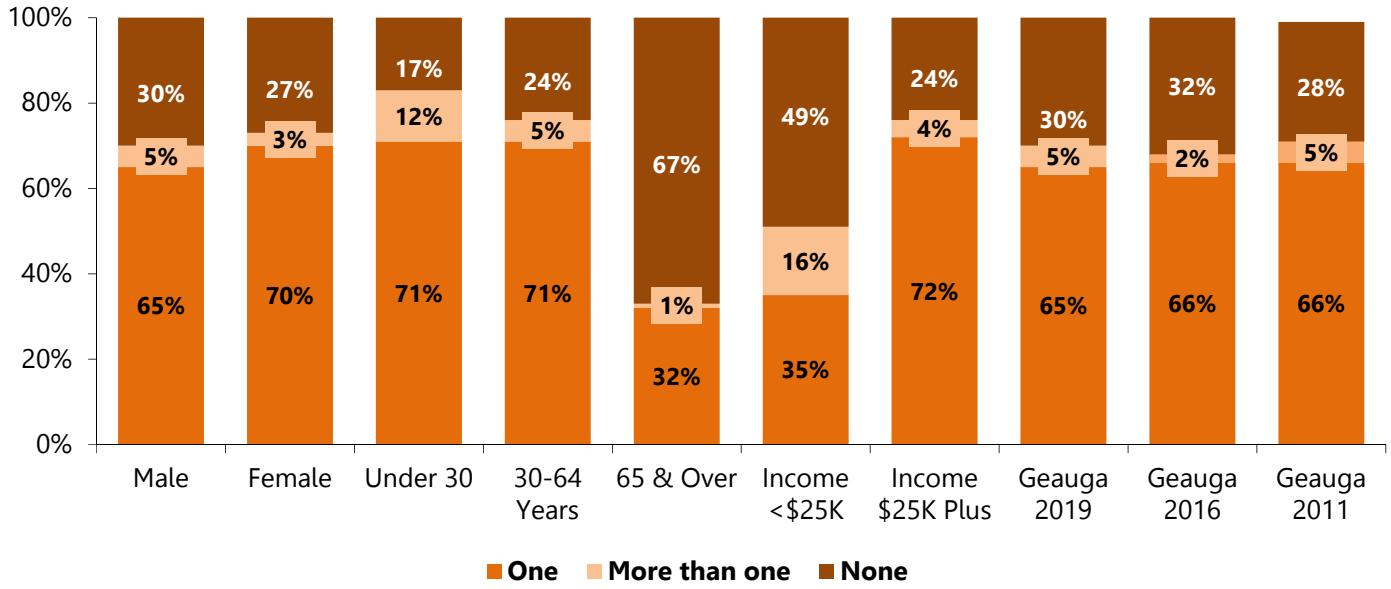
3,393 Geauga County adults had intercourse with more than one partner in the past year.

Sexual Behavior

- Seventy percent (70%) of Geauga County adults had sexual intercourse in the past year.
- Five percent (5%) of adults reported they had intercourse with more than one partner in the past year.
- Twenty-eight percent (28%) of Geauga County adults had been tested for HIV in their lifetime, 64% had not been tested, and 8% did not know if they had ever been tested.
- Geauga County adults reported doing the following to keep them or their partner from getting STD's/STI's:
  - Had sexual intercourse with only one partner (66%)
  - Not sexually active (22%)
  - Nothing (9%)
  - Decreased their number of sexual partners (2%)
  - Used condoms (2%)
- Geauga County adults used the following methods the last time they had sex to keep from becoming pregnant:
  - Themselves or their partner was too old (23%)
  - No partner/not sexually active (21%)
  - Vasectomy (14%)
  - Tubes tied (9%)
  - Birth control pill (9%)
  - Condoms (8%)
  - Withdrawal (6%)
  - Hysterectomy (5%)
  - IUD (5%)
  - Infertile (4%)
  - Ovaries or testicles removed (1%)
  - Contraceptive implants (1%)
  - Contraceptive ring (1%)
  - Rhythm method (1%)
  - Foam, jelly, film, or cream (1%)
  - Diaphragm, cervical cap, or sponge (<1%)
  - Other method (3%)
- Five percent (5%) of adults did not use any method of birth control, 2% of adults were currently pregnant, and 2% were currently trying to get pregnant.
- The following situations applied to Geauga County adults:
  - Had sex without a condom in the past year (31%)
  - Had sex with someone they met on social media (4%)
  - Had anal sex without a condom in the past year (3%)
  - Had sex with someone they did not know (2%)
  - Had four or more sexual partners in the past year (2%)
  - Treated for a sexually transmitted disease in the past year (1%)
  - Tested positive for HPV (1%)
  - Engaged in sexual activity they would not have done if sober (1%)
  - Engaged in sexual activity with someone of the same gender (1%)
  - Tested positive for Hepatitis C (1%)
  - Injected any drug other than those prescribed in the past year (<1%)

The following graph shows the number of sexual partners Geauga County adults had in the past year. An example of how to interpret the information in the graph includes: 65% of all adults had one sexual partner in the past 12 months and 5% had more than one.

Geauga County Number of Sexual Partners in the Past Year*



**Respondents were asked: "During the past 12 months, with how many different people have you had sexual intercourse?"*
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Had more than one sexual partner in past year	5%	2%	5%	N/A	N/A

N/A – Not Available

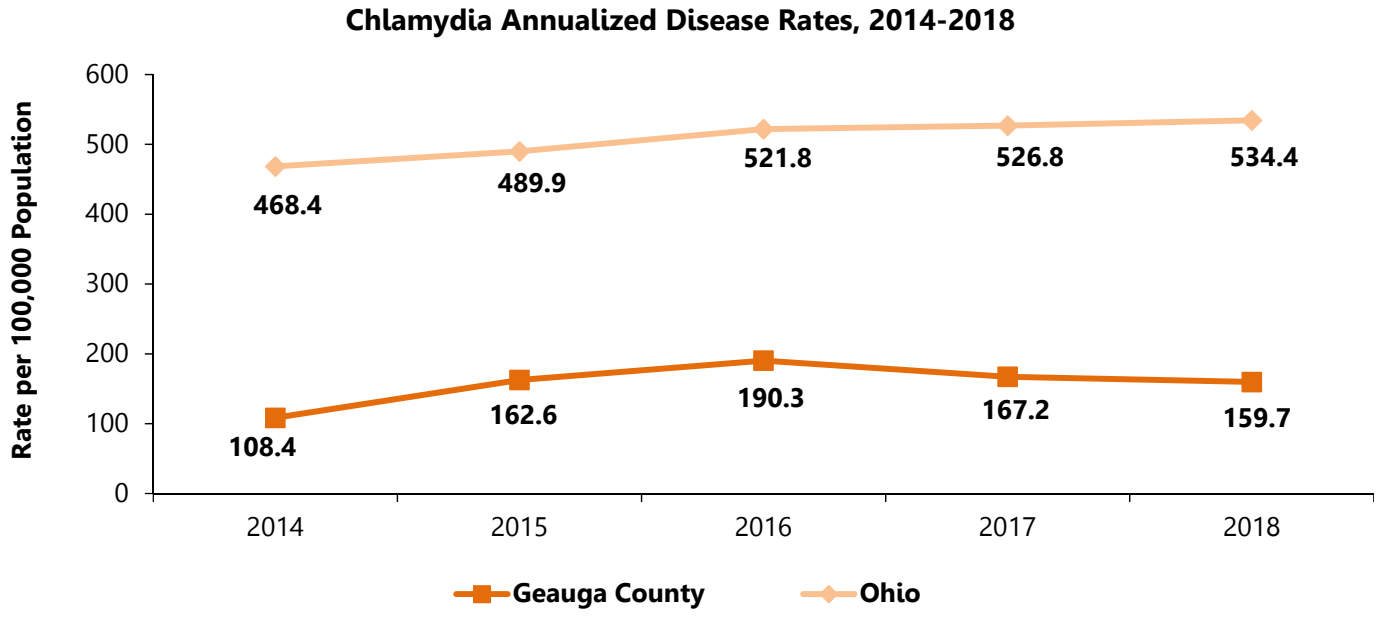
Scope of the Problem: Sexual Violence

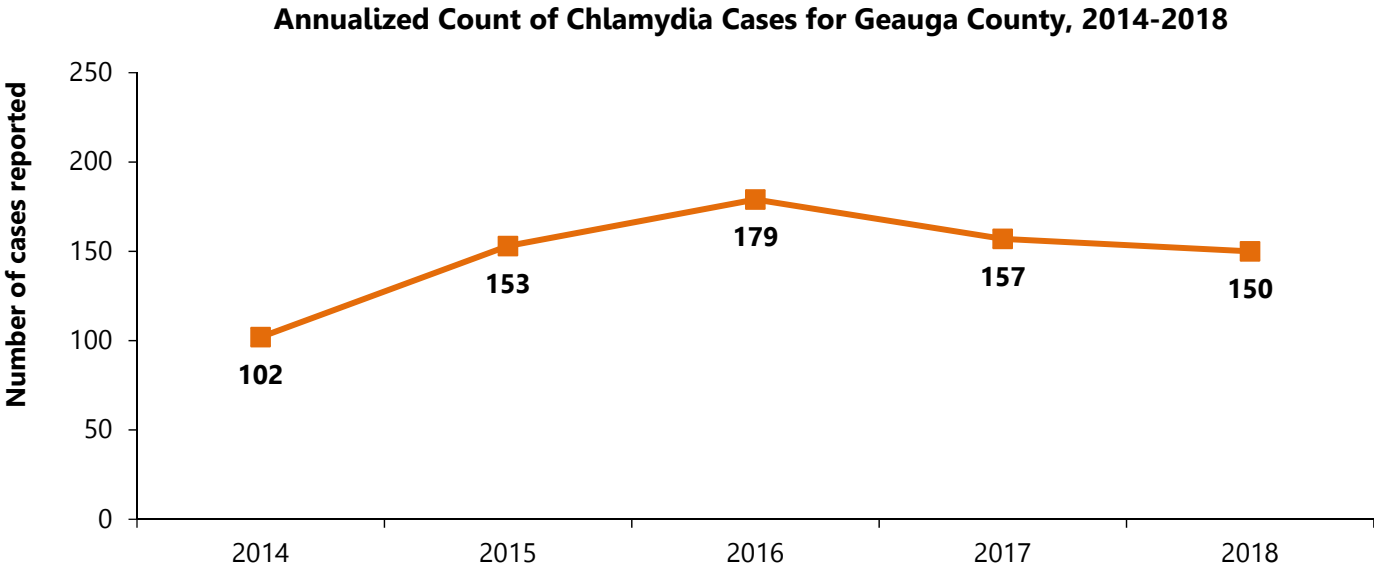
- 1 out of every 6 American women has been the victim of an attempted or completed rape in her lifetime (14.8% completed, 2.8% attempted).
- About 3% of American men—or 1 in 33—have experienced an attempted or completed rape in their lifetime.
- From 2009-2013, Child Protective Services agencies substantiated, or found strong evidence to indicate that, 63,000 children a year were victims of sexual abuse.
- A majority of child victims are 12-17. Of victims under the age of 18: 34% of victims of sexual assault and rape are under age 12, and 66% of victims of sexual assault and rape are age 12-17.
- Every 98 seconds another American is sexually assaulted.
- Number of people victimized each year:
  - 80,600 were sexually assaulted or raped
  - 60,000 were victims of "substantiated or indicated" sexual abuse
  - 321,500 Americans 12 and older were sexually assaulted or raped
  - 18,900 experienced unwanted sexual contact

(Source: RAINN 25 years, Scope of the Problem: Statistics, 2019)

The following graphs show Geauga County chlamydia rates per 100,000 population and the number of chlamydia disease cases. The graphs show:

- Geauga County chlamydia rates and cases peaked in 2016 and have decreased from 2016 to 2018.

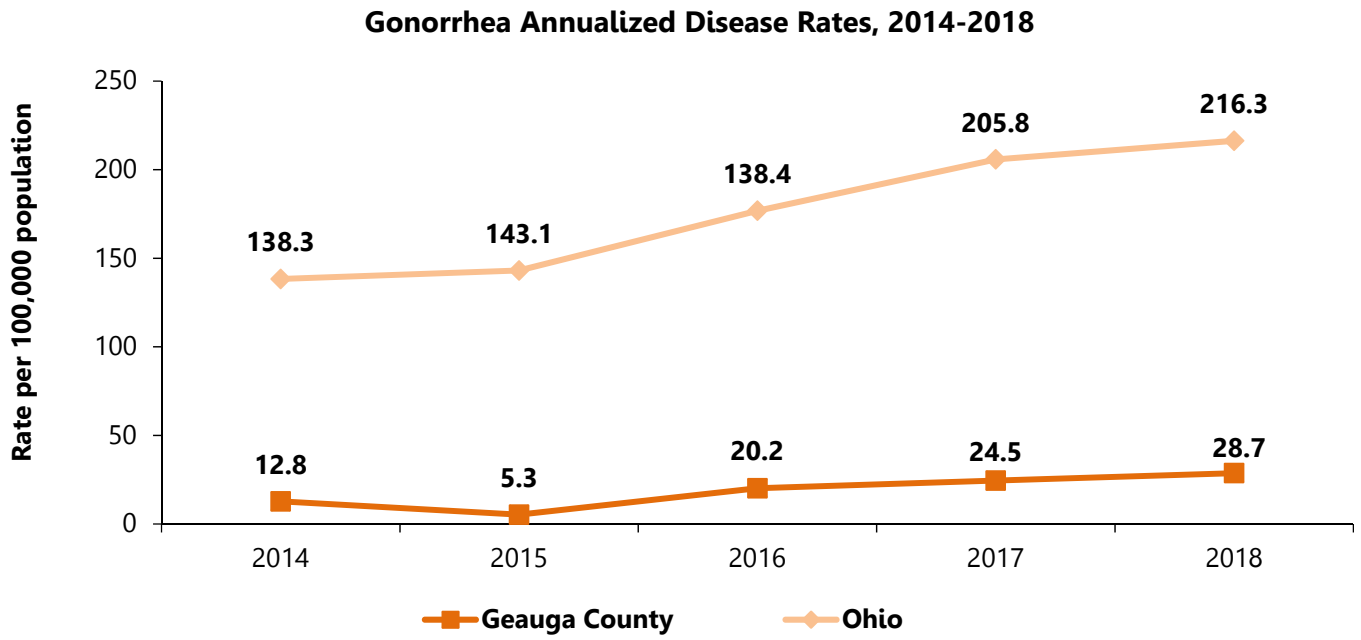


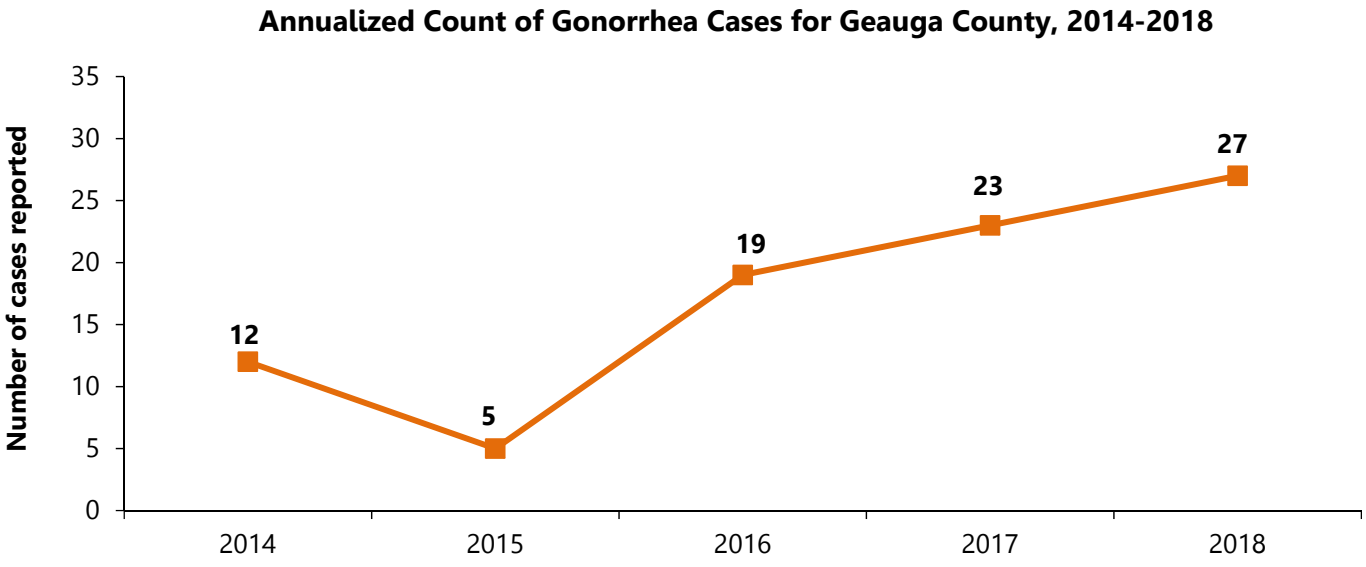


(Source for graphs: ODH, STD Surveillance Program, data reported through 5/2/19, updated 8/2/19)

The following graphs show Geauga County gonorrhea rates per 100,000 population and the number of gonorrhea disease cases. The graphs show:

- The Geauga County gonorrhea rates and cases both reached their lowest in 2015 and have increased from 2015 to 2018.





(Source for graphs: ODH, STD Surveillance Program, data reported through 5/2/19, updated 8/2/19)

Health Behaviors: Mental Health

Key Findings

Eighteen percent (18%) of adults had been told they had a depressive disorder including depression, major depression, dysthymia, or minor depression. Three percent (3%) of Geauga County adults considered attempting suicide in the past year.

2,036 Geauga County adults considered attempting suicide in the past year.

Mental Health

- Eighteen percent (18%) of adults had been told they have a depressive disorder including depression, major depression, dysthymia, or minor depression.
- Three percent (3%) of Geauga County adults considered attempting suicide in the past year.
- One percent (1%) of adults reported attempting suicide in the past year.
- Geauga County adults reported when they were feeling sad, blue, or depressed, they also had a period of at least two weeks when they experienced the following:
  - Felt fatigued or had no energy (24%)
  - Had trouble sleeping or slept too much (21%)
  - Had trouble thinking or concentrating (13%)
  - Woke up before you wanted to (13%)
  - Lost interest in most things (11%)
  - Felt extremely restless or slowed down (10%)
  - Had a weight or appetite change (9%)
  - Felt worthless or hopeless (9%)
  - Thought about death and suicide (4%)
- Forty-five percent (45%) of adults reported they had not felt sad, blue, or depressed recently.
- Adults reported that themselves or a family member were diagnosed with or treated for the following mental health issues:
  - Anxiety or emotional problems (24%)
  - Depression (20%)
  - An anxiety disorder (14%)
  - Attention deficit disorder (ADD/ADHD) (9%)
  - Bipolar disorder (7%)
  - Post-traumatic stress disorder (PTSD) (5%)
  - Alcohol and illicit drug abuse (5%)
  - Developmental disability (4%)
  - Eating disorder (3%)
  - Autism spectrum (2%)
  - Life-adjustment disorder (2%)
  - Other trauma (2%)
  - Psychotic disorder (1%)
  - Problem gambling (1%)
  - Some other mental health disorder (1%)
- Nineteen percent (19%) of adults indicated that they or a family member had taken medication for one or more mental health issues.

- Geauga County adults indicated the following caused them anxiety, stress, or depression:
  - Job stress (35%)
  - Financial stress (29%)
  - Death of a close family member or friend (20%)
  - Raising or caring for children (16%)
  - Sick family member (15%)
  - Current news/political environment (15%)
  - Poverty/having no money (12%)
  - Marital/dating relationship (12%)
  - Caring for a parent (11%)
  - Fighting at home (8%)
  - Family member with a mental illness (8%)
  - Other stress at home (6%)
  - Unemployment (5%)
  - Social media (5%)
  - Divorce/separation (4%)
  - Not having enough to eat (1%)
  - Sexual orientation/gender identity (1%)
  - Not feeling safe at home (1%)
  - Not having a place to live (1%)
  - Gambling (<1%)
  - Other (9%)

- Thirteen percent (13%) of adults used a program or service for themselves or a loved one to help with depression, anxiety, or emotional problems. Reasons for not using such a program included:
  - Had not thought of it (5%)
  - Other priorities (5%)
  - Stigma of seeking mental health services (3%)
  - Could not afford to go (2%)
  - Did not know how to find a program (1%)
  - Co-pay/deductible was too high (1%)
  - Fear (1%)
  - Could not find a mental health provider (1%)
  - Other reasons (1%)

- Seventy-two percent (72%) of adults indicated they did not need a program or service to help with depression, anxiety, or emotional problems.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Considered attempting suicide in the past year	2%	3%	3%	N/A	N/A
Attempted suicide in the past year	1%	0%	1%	N/A	N/A

N/A – Not Available

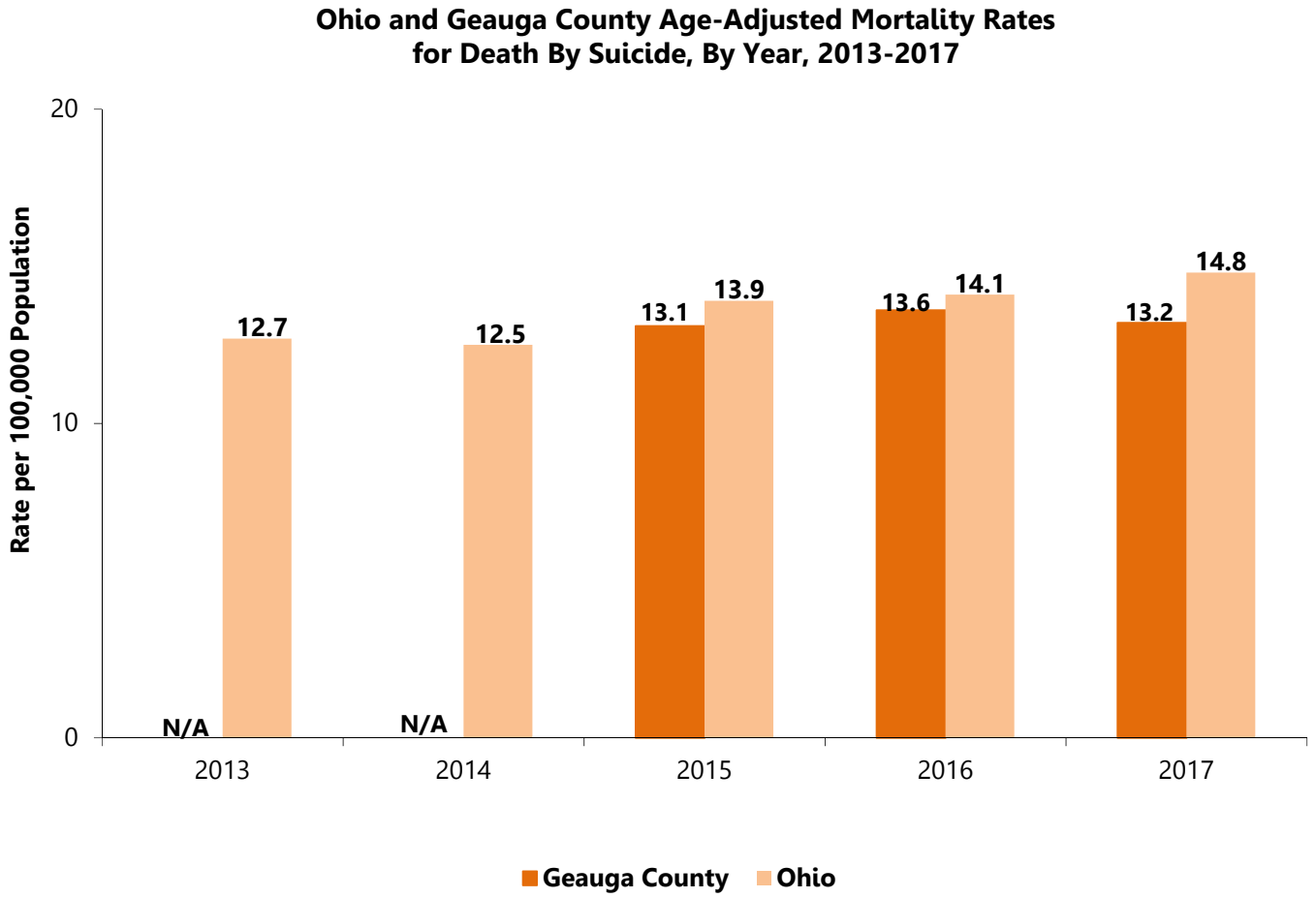
Common Signs of Mental Illness in Adults

- Trying to tell the difference between what expected behaviors are and what might be the signs of a mental illness isn't always easy. There's no easy test that can let someone know if there is mental illness or if actions and thought might be typical behaviors of a person or the result of a physical illness.
- Each illness has its own symptoms, but common signs of mental illness in adults can include:
  - Excessive worrying or fear
  - Feeling excessively sad or low
  - Extreme mood changes
  - Avoiding friends and social activities
  - Changing in sleeping habits or feeling tired and low energy
  - Abuse of substances like alcohol or drugs
  - Inability to carry out daily activities or handle daily problems and stress

(Source: National Alliance on Mental Illness, Know the Warning Signs, Updated 2018)

Death by Suicide

The graph below shows the Ohio and Geauga County age-adjusted mortality rates for death by suicide by year.



(Source: ODH, Ohio Public Health Data Warehouse, Mortality, Leading Causes of Death, updated 7/8/2019)

Chronic Disease: Cardiovascular Health

Key Findings

Four percent (4%) of adults had survived a heart attack and 2% had survived a stroke at some time in their life. Almost two-fifths (39%) of Geauga County adults had high blood cholesterol, 30% had high blood pressure, 24% were obese, and 10% were current smokers, four known risk factors for heart disease and stroke.

Geauga County
Leading Causes of Death, 2015-2017

Total Deaths: 2,633

1. Heart Disease (24% of all deaths)
2. Cancer (24%)
3. Accidents, Unintentional Injuries (6%)
4. Chronic Lower Respiratory Diseases (5%)
5. Stroke (4%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

Ohio
Leading Causes of Death, 2015-2017

Total Deaths: 361,238

1. Heart Disease (23% of all deaths)
2. Cancers (21%)
3. Accidents, Unintentional Injuries (7%)
4. Chronic Lower Respiratory Diseases (6%)
5. Stroke (5%)

(Source: Ohio Public Health Data Warehouse, 2015-2017)

Heart Disease and Stroke

- Four percent (4%) of adults reported they had survived a heart attack or myocardial infarction, increasing to 10% of those over the age of 65.
- Two percent (2%) of Geauga County adults reported they had survived a stroke, increasing to 4% of those over the age of 65.
- Three percent (3%) of adults reported they had angina or coronary heart disease, increasing to 7% of those over the age of 65.
- Two percent (2%) of adults reported they had congestive heart failure.

High Blood Pressure (Hypertension)

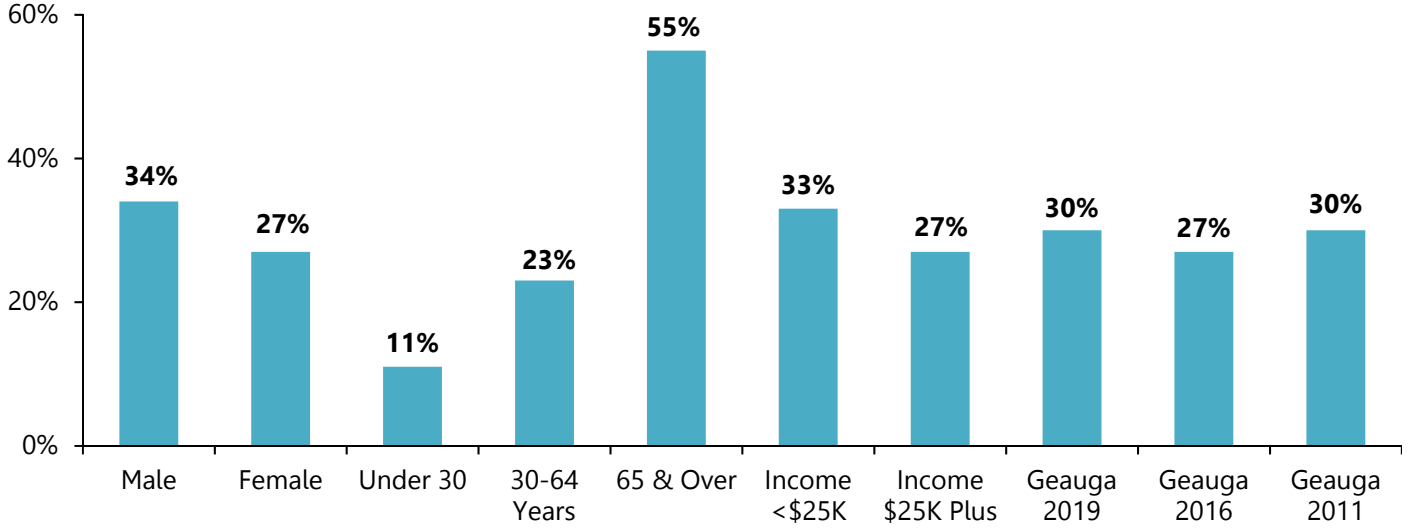
- Thirty percent (30%) of adults had been diagnosed with high blood pressure.
- Nine percent (9%) of adults were told they were pre-hypertensive or borderline high.
- Three percent (3%) of adults were told they had diabetes during pregnancy
- Eighty-seven percent (87%) of adults had their blood pressure checked within the past year. Ninety-six percent (96%) of adults had their blood pressure checked within the past 5 years.
- Geauga County adults diagnosed with high blood pressure were more likely to have:
  - Been ages 65 years or older (55%), compared to 23% of those ages 30-64.
  - Been classified as obese by Body Mass Index (42%), compared to 27% of those who were overweight and 21% of those who were normal weight.
  - Incomes less than $25,000 (33%), compared to 27% of those with incomes more than $25,000.

High Blood Cholesterol

- More than one-third (39%) of adults had been diagnosed with high blood cholesterol.
- Sixty-five percent (65%) of adults had their blood cholesterol checked within the past year. More than four-fifths (84%) of adults had their blood cholesterol checked within the past 5 years.
- Geauga County adults with high blood cholesterol were more likely to have:
  - Been ages 65 years or older (61%), compared to 36% of those ages 30-64.
  - Incomes less than $25,000 (50%), compared to 36% of those with incomes more than $25,000.
  - Been classified as obese by Body Mass Index (43%), compare to 42% of those who were overweight and 32% of those who were normal weight.

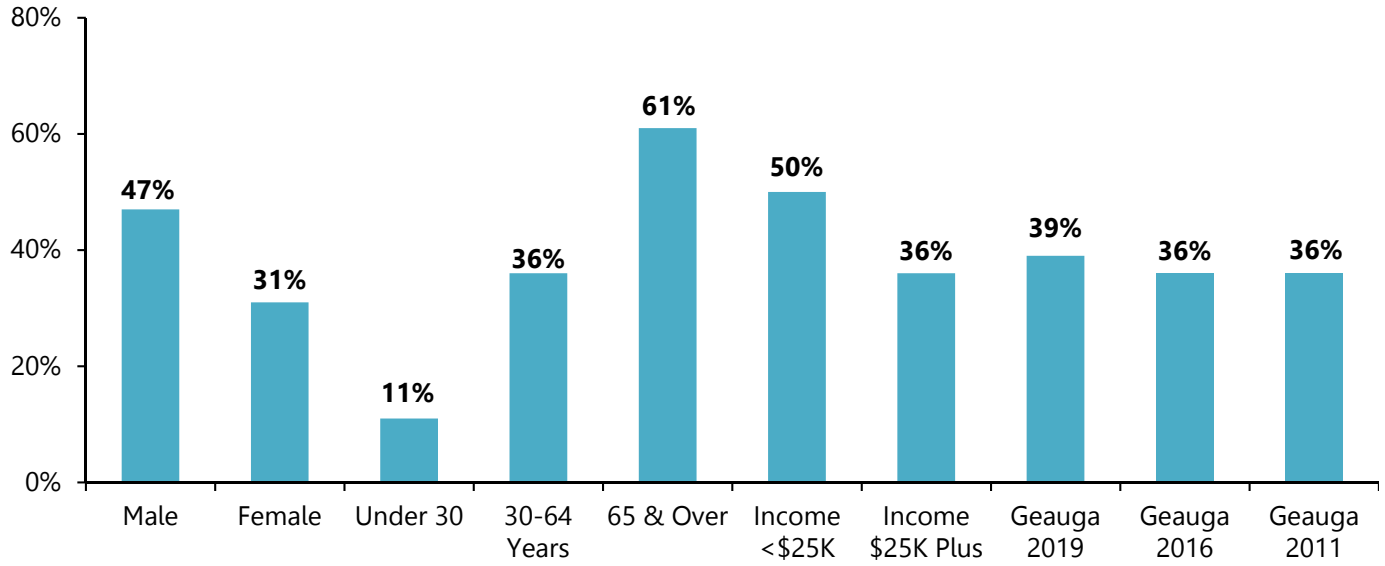
The following graphs show the percentage of Geauga County adults who had been diagnosed with high blood pressure and high blood cholesterol. An example of how to interpret the information in the first graph includes: 30% of all Geauga County adults had been diagnosed with high blood pressure, including 34% of males and 55% of those over the age of 65.

Geauga County Adults Diagnosed with High Blood Pressure*



**Does not include respondents who indicated high blood pressure during pregnancy only.*

Geauga County Adults Diagnosed with High Blood Cholesterol

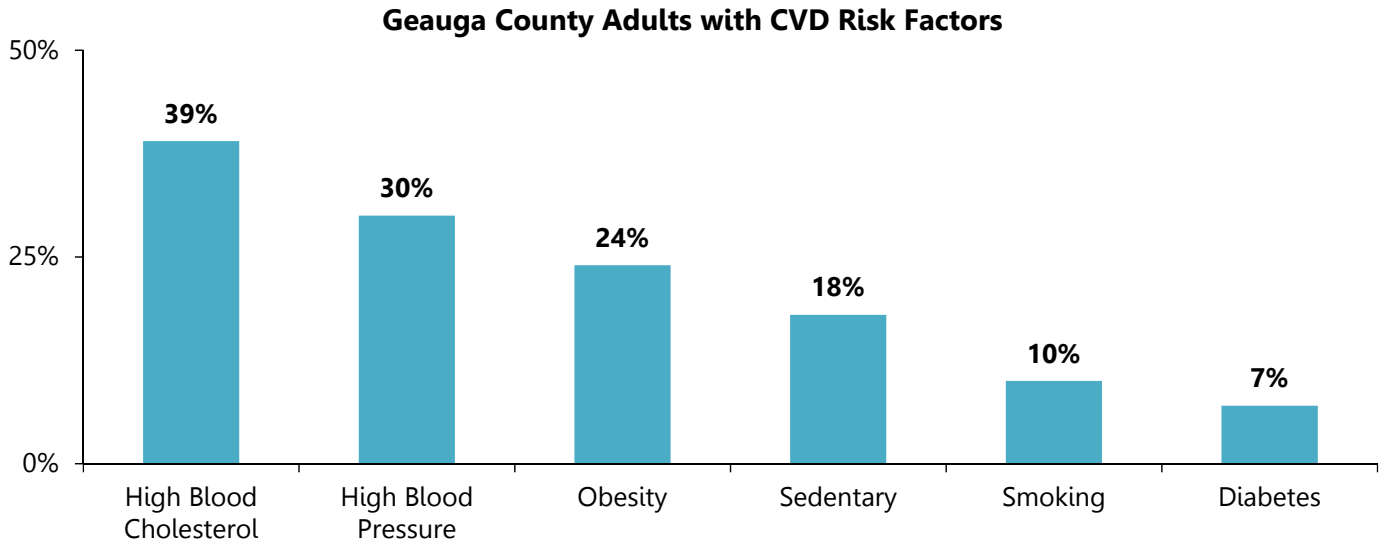


Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Ever diagnosed with angina or coronary heart disease	2%	3%	3%	5%	4%
Ever diagnosed with a heart attack or myocardial infarction	2%	4%	4%	6%	4%
Ever diagnosed with a stroke	2%	2%	2%	4%	3%
Had been told they had high blood pressure	30%	27%	30%	35%	32%
Had been told their blood cholesterol was high	36%	36%	39%	33%	33%
Had their blood cholesterol checked within the last five years	82%	86%	84%	85%	86%

N/A - Not Available

The following graph shows the percentage of Geauga County adults who had major risk factors for developing cardiovascular disease (CVD).



Healthy People 2020 Objectives

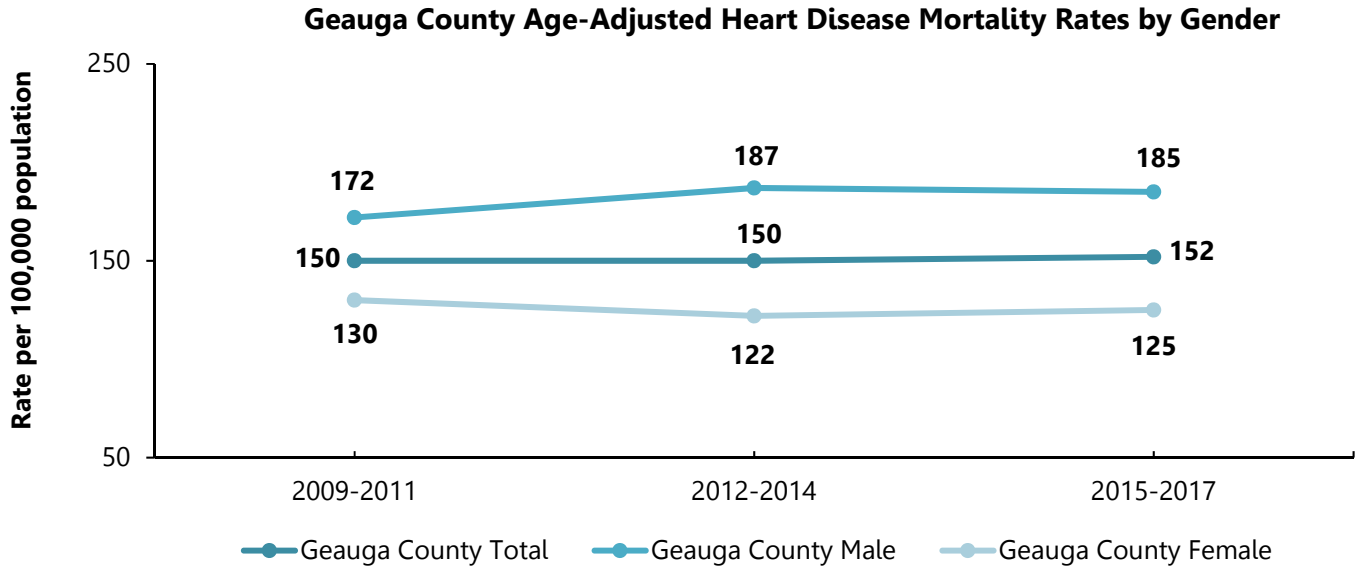
Heart Disease and Stroke (HDS)

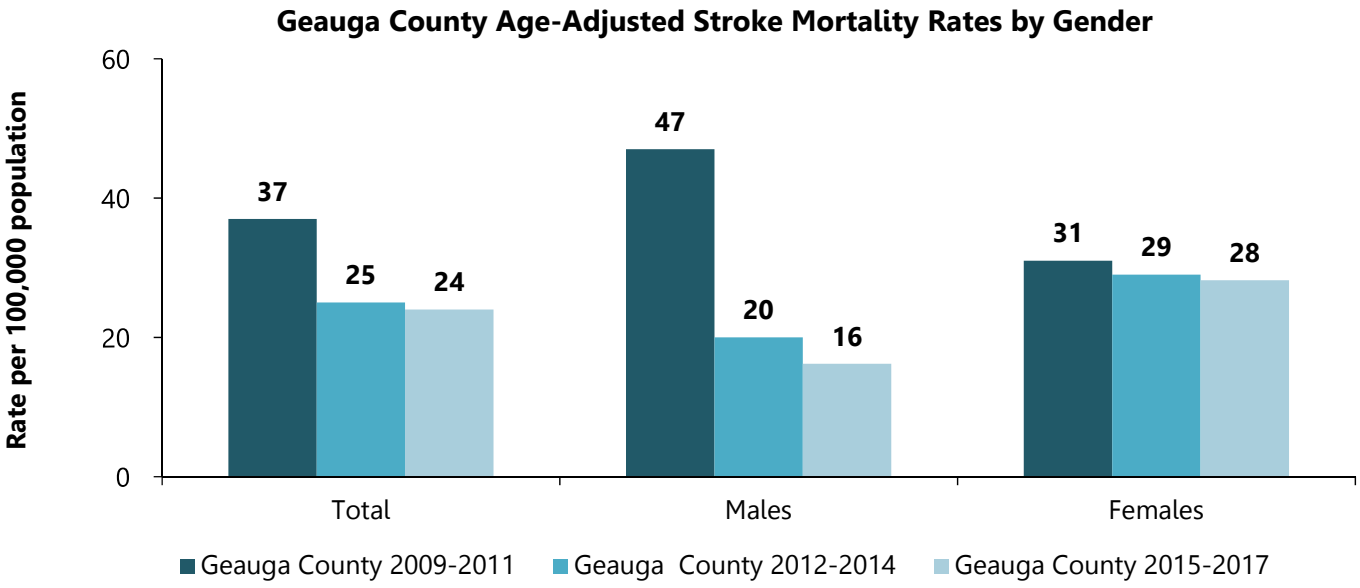
Objective	2019 Geauga Survey Population Baseline	2017 U.S. Baseline	Healthy People 2020 Target
HDS-5: Reduce proportion of adults with hypertension	30%	32% Adults age 18 and up	27%
HDS-6: Increase proportion of adults who had their blood cholesterol checked within the preceding 5 years	84%	86% Adults age 18 and up	82%
HDS-7: Decrease proportion of adults with high total blood cholesterol (TBC) levels	39%	33% Adults age 20+ with TBC>240 mg/dl	14%

Note: All U.S. figures age-adjusted to 2000 population standard.
(Source: Healthy People 2020, 2017 BRFSS, 2019 Geauga County Community Health Assessment)

The following graphs shows the age-adjusted mortality rates per 100,000 population for heart disease and stroke by gender.

- From 2009 to 2017, the total Geauga County age adjusted heart disease mortality rate fluctuated.
- From 2009 to 2017, the Geauga County stroke mortality rate fluctuated for both genders.



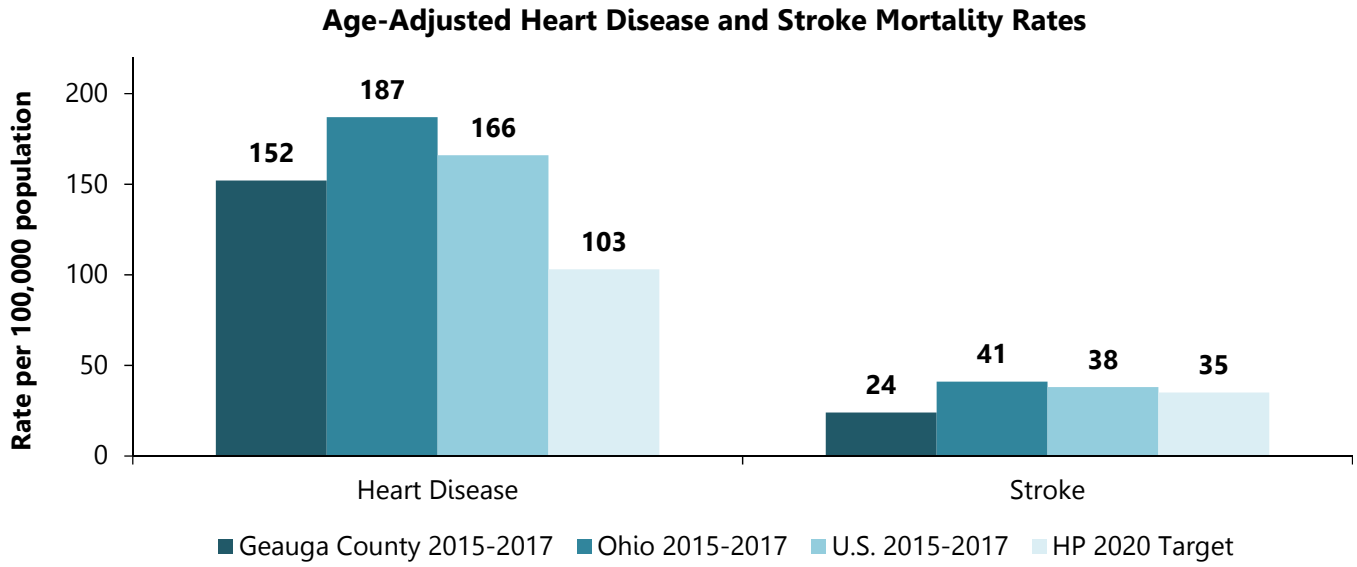


(Source for graphs: Ohio Public Health Data Warehouse, 2009-2017)

The following graph shows the age-adjusted mortality rates per 100,000 population for heart disease and stroke.

- When age differences are accounted for, the statistics indicate that from 2015 to 2017 the Geauga County heart disease mortality rate was lower than the Ohio and U.S. rates, but higher than the Healthy People 2020 target objective.

- The Geauga County age-adjusted stroke mortality rate was lower than the state, the U.S., and the Healthy People 2020 target objective from 2015 to 2017.



(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017 and Healthy People 2020)

2018 ACC/AHA Guidelines on Cholesterol

- The new 2018 ACC/AHA Guideline on the Management of Blood Cholesterol allows for more personalized care for patients compared to its 2013 predecessor.
- Two of the biggest changes include more detailed risk assessments and new cholesterol-lowering drug options for people at the highest risk for cardiovascular disease.
- In addition to traditional risk factors such as smoking, high blood pressure and high blood sugar, the new guideline adds factors like family history and ethnicity, as well as certain health conditions such as metabolic syndrome, chronic kidney disease, chronic inflammatory conditions, premature menopause or pre-eclampsia and high lipid biomarkers, to help health care providers better determine individualized risk and treatment options.
- The new guideline suggests elective cholesterol screening is appropriate for children as young as two who have a family history of heart disease or high cholesterol.
- In most children, an initial screening test can be considered between the ages of nine and 11 and then again between 17 and 21.
- Because of a lack of sufficient evidence in young adults, there are no specific recommendations for that age group.

(Source: American College of Cardiology, New ACC/AHA Cholesterol Guideline Allows for More Personalized Care; New Treatment Options, November 10, 2018)

Chronic Disease: Cancer

Key Findings

Fourteen percent (14%) of Geauga County adults had been diagnosed with cancer at some time in their life, increasing to 26% of those over the age of 65.

Cancer

- Fourteen percent (14%) of Geauga County adults were diagnosed with cancer at some point in their lives, increasing to 26% of those over the age of 65.
- Of those diagnosed with cancer, they reported the following types:
  - Other skin cancer (23%)
  - Breast cancer (15%)
  - Melanoma (10%)
  - Bladder cancer (10%)
  - Prostate cancer (8%)
  - Colon cancer (4%)
  - Non-Hodgkin's lymphoma (4%)
  - Renal cancer (2%)
  - Testicular cancer (2%)
  - Brain cancer (2%)
  - Bone cancer (2%)
  - Heart cancer (2%)
  - Other types of cancer (6%)
- One percent (1%) of adults were diagnosed with multiple types of cancer.

Geauga County
Incidence of Cancer, 2012-2016

All Types: 2,764 cases

1. Breast: 458 cases (17%)
2. Prostate: 341 cases (12%)
3. Lung and Bronchus: 321 (12%)
4. Colon and Rectum: 238 cases (9%)
5. Non-Hodgkins Lymphoma: 149 cases (5%)

From 2015-2017, there were 624 cancer deaths in Geauga County.

(Source: Ohio Cancer Incidence, ODH Ohio Public Health Data Warehouse, 2018)

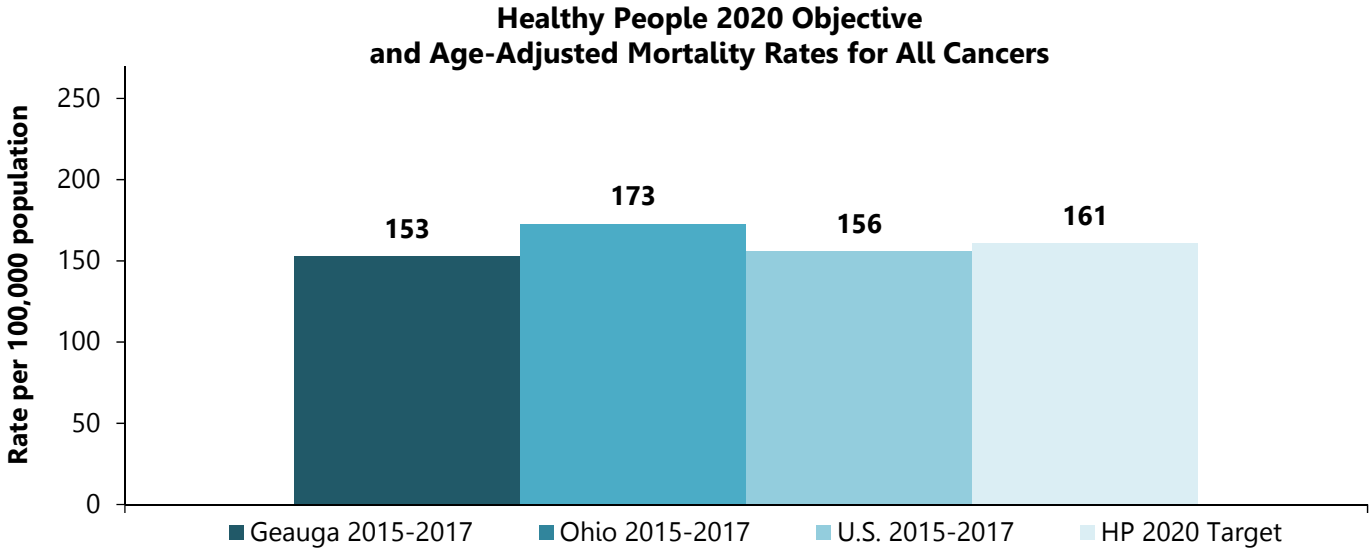
2019 Cancer Estimates

- In 2019, more than 1.7 million new cancer cases are expected to be diagnosed.
- About 606,880 Americans are expected to die of cancer in 2019, which translates to about 1,660 deaths per day.
- A substantial proportion of cancers could be prevented, including all cancers caused by tobacco use and other unhealthy behaviors.
- According to a recent study by American Cancer Society researchers, at least 42% (about 740,000 cases in 2019) of newly diagnosed cancers in the U.S. are potentially avoidable, including:
  - The 19% of all cancers that are caused by smoking
  - The 18% of all cancers that are caused by a combination of excess body weight, physical inactivity, excess alcohol consumption, and poor nutrition
- In 2019, estimates predict that there will be 67,150 new cases of cancer and 25,440 cancer deaths in Ohio.
- Of those new cancer cases, approximately 9,680 (14%) will be from lung and bronchus cancers and 6,200 (9%) will be from colon and rectum cancers.
- About 10,240 new cases of female breast cancer are expected in Ohio.
- New cases of male prostate cancer in Ohio are expected to be 5,340 (8%).

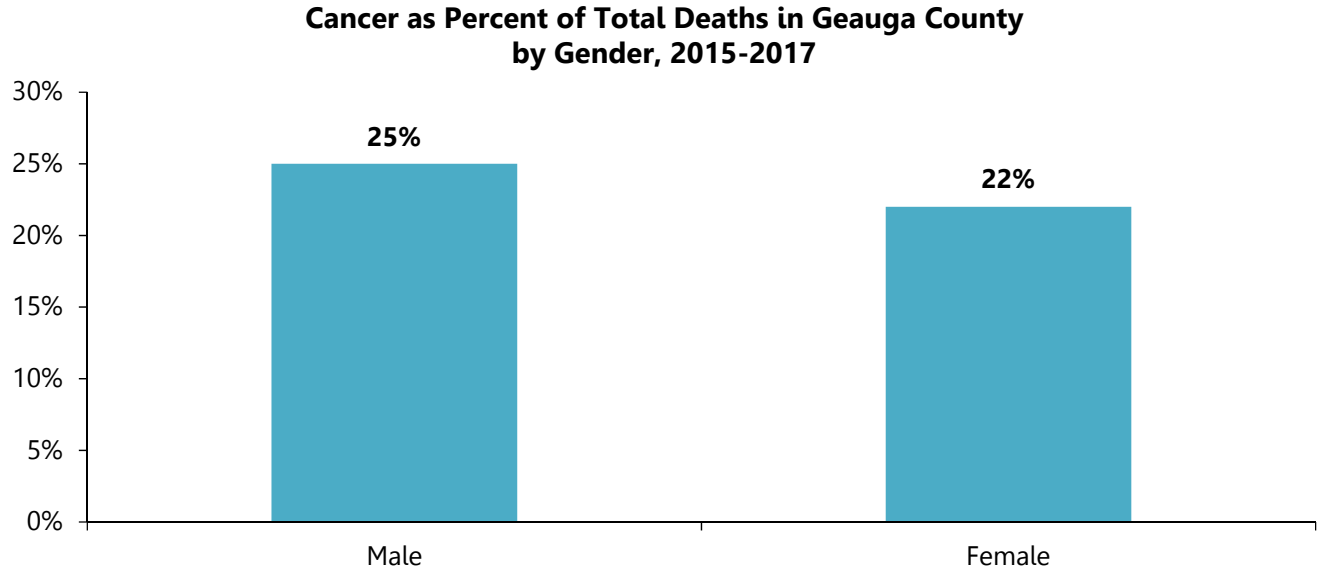
(Source: American Cancer Society, Facts and Figures 2019)

The following graphs show the Geauga County, Ohio and U.S. age-adjusted mortality rates (per 100,000 population, 2000 standard) for all types of cancer in comparison to the Healthy People 2020 objective and the percent of total cancer deaths in Geauga County. The graphs show:

- The Geauga County age-adjusted cancer mortality rate was lower than the Ohio rate, U.S. rate, and the Healthy People 2020 target objective.
- The percentage of Geauga County males who died from all cancers is higher than the percentage of Geauga County females who died from all cancers.



(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017, Healthy People 2020)



(Source: Ohio Public Health Data Warehouse, 2015-2017)

Geauga County Incidence of Cancer, 2012-2016

Types of Cancer	Number of Cases for Geauga County	Percent of Total Incidence of Cancer for Geauga County	Age-Adjusted Rate for Geauga County	Age-Adjusted Rate for Ohio
Breast	458	16.6%	73.4	68.5
Prostate	341	12.3%	99.1	103.0
Lung and Bronchus	321	11.6%	47.7	68.5
Colon & Rectum	238	8.6%	38.5	41.5
Non-Hodgkins Lymphoma	149	5.4%	24	19.1
Melanoma of Skin	142	5.1%	24.7	22.9
Bladder	139	5.0%	20.7	22.0
Uterus	114	4.1%	31	29.7
Thyroid	92	3.3%	18.7	15.1
Leukemia	83	3.0%	14	12.2
Kidney & Renal Pelvis	81	2.9%	12.1	17.1
Pancreas	77	2.8%	11.4	12.8
Oral Cavity & Pharynx	75	2.7%	11.4	11.8
Multiple Myeloma	46	1.7%	6.9	6.0
Liver & Intrahepatic Bile Duct	41	1.5%	6.3	7.0
Ovary	41	1.5%	11.9	11.0
Brain and Other CNS	34	1.2%	6.1	7.1
Stomach	29	1.0%	4.3	6.4
Esophagus	24	0.9%	3.6	5.2
Hodgkins Lymphoma	16	0.6%	3.6	2.8
Cervix	14	0.5%	6.5	7.6
Testis	13	0.5%	7.6	5.8
Larynx	12	0.4%	1.7	4.0
Other Sites/Types	184	6.7%	30.8	36.4
Total	**2,764**	**100%**	**436.7**	**461.9**

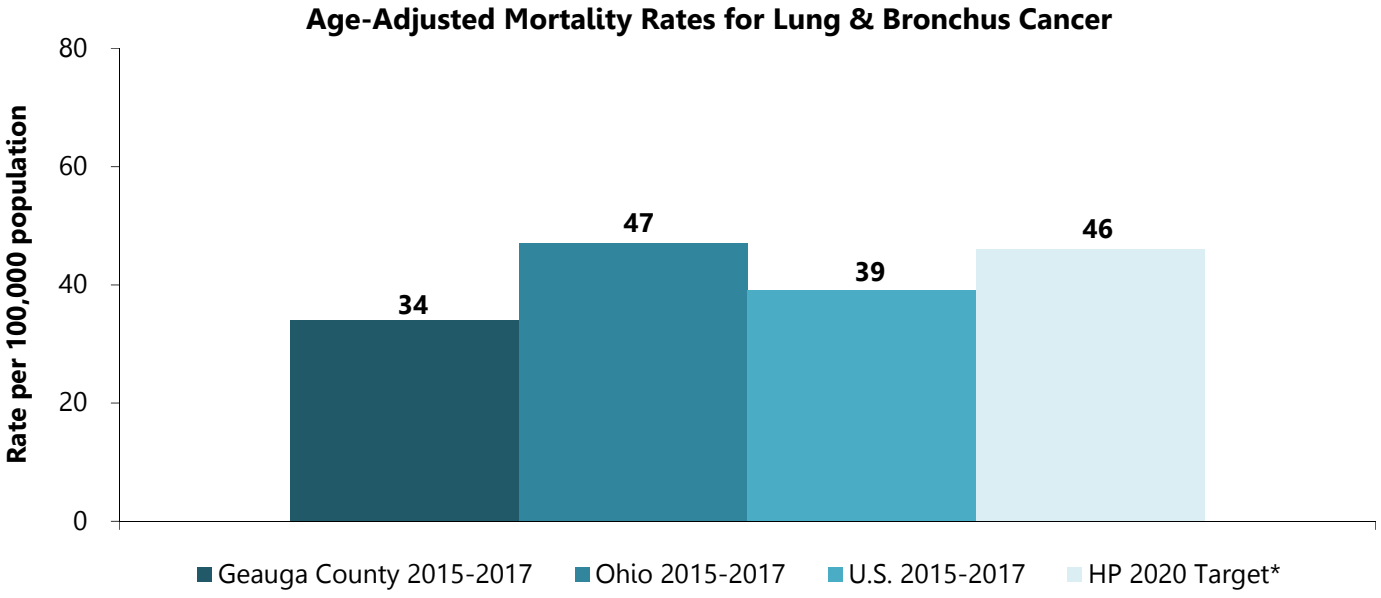
(Source: Ohio Cancer Incidence Surveillance System, ODH Information Warehouse, 2012-2016)

Lung Cancer

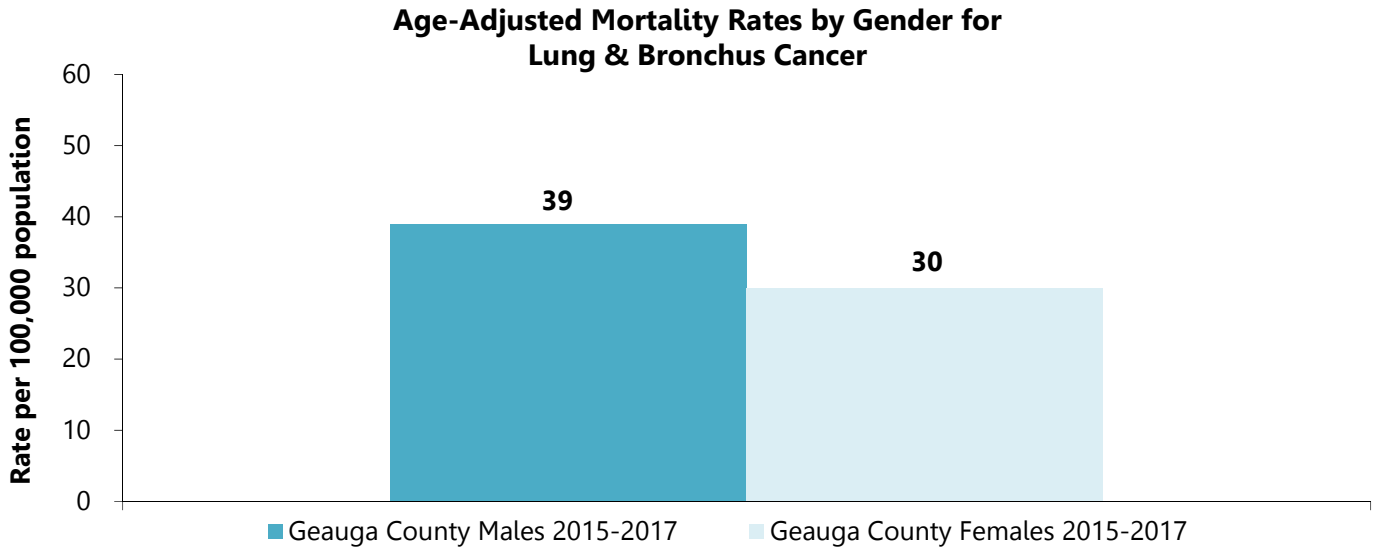
- According to the American Cancer Society, smoking causes 81% of lung cancer deaths in the U.S. Men and women who smoke are about 25 times more likely to develop lung cancer than nonsmokers *(Source: American Cancer Society, Facts & Figures 2019).*
- Lung and Bronchus cancer was the third leading cause of cancer deaths in Geauga County from 2015-2017 *(Source: Ohio Public Health Data Warehouse, 2015-2017).*
- In Geauga County, 6% of male adults were current smokers and 39% were former smokers.
- In Geauga County, 14% of female adults were current smokers and 28% were former smokers.

The following graphs show Geauga County, Ohio, and U.S. age-adjusted mortality rates per 100,000 population for lung and bronchus cancer in comparison with the Healthy People 2020 target objective as well as Geauga County age-adjusted mortality rates for lung and bronchus cancer by gender. The graphs show:

- For the age-adjusted mortality rates for lung and bronchus cancer, Geauga County rates were lower than the Ohio rate, U.S. rate, and the Healthy People 2020 target objective.
- Disparities existed by gender for Geauga County lung and bronchus cancer age-adjusted mortality rates. The 2015-2017 Geauga County male rate was significantly higher than the Geauga County female rate.



Note: Healthy People 2020's target rate and the U.S. rate is for adults aged 45 years and older.
**Healthy People 2020 Target data is for lung cancer only.*
(Sources: Healthy People 2020, Ohio Public Health Data Warehouse 2015-2017, CDC Wonder 2015-2017)



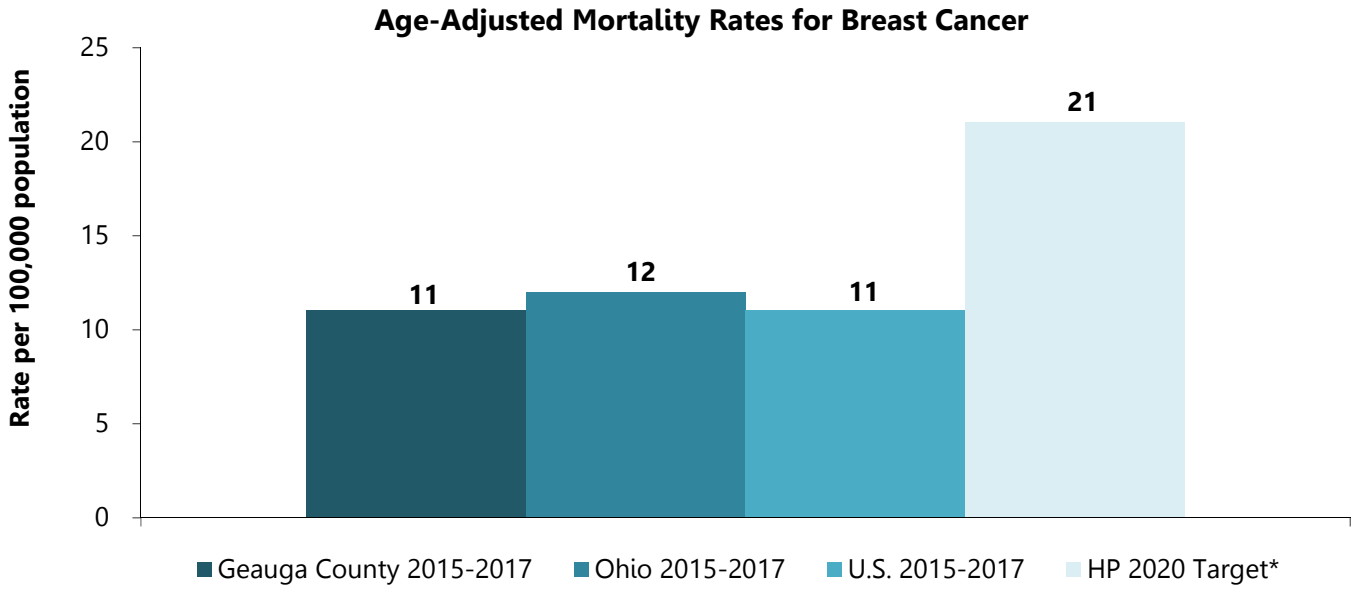
(Source: Ohio Public Health Data Warehouse, 2015-2017)

Breast Cancer

- Sixty-four percent (64%) of Geauga County females reported having had a clinical breast examination in the past year.
- Sixty-two percent (62%) of Geauga County females over the age of 40 had a mammogram in the past year.
- For women at average risk of breast cancer, the American Cancer Society recommends that those 40 to 44 years of age have the option to begin annual mammography; those 45 to 54 undergo annual mammography; and those 55 years of age and older may transition to biennial mammography or continue annual mammography. Women should continue mammography as long as overall health is good and life expectancy is 10 or more years. For some women at high risk of breast cancer, annual magnetic resonance imaging (MRI) is recommended to accompany mammography, typically starting at age 30 *(Source: American Cancer Society, Facts & Figures 2019).*

The following graph shows Geauga County, Ohio, and U.S. age-adjusted mortality rates per 100,000 populations for breast cancer in comparison with the Healthy People 2020 target objective. This graph shows:

- For the age-adjusted mortality rates for breast cancer, Geauga County rates were lower than the Ohio rate and the Healthy People 2020 target objective and equal to the U.S. rate.



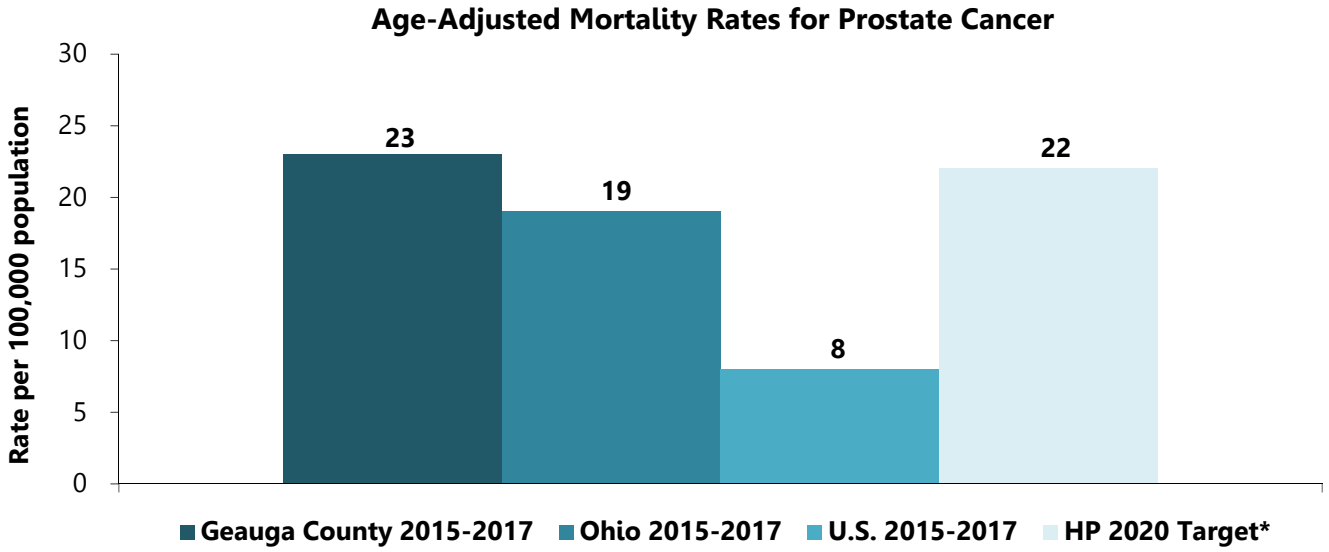
Note: Healthy People 2020's target rate and the U.S. rate is for adults aged 45 years and older.
(Sources: Healthy People 2020, Ohio Public Health Data Warehouse 2015-2017, CDC Wonder 2015-2017)

Prostate Cancer

- Forty-eight percent (48%) of Geauga County males had a Prostate-Specific Antigen (PSA) test at some time in their life and 34% had one in the past year.
- Prostate cancer deaths accounted for 13% of all male cancer deaths from 2015-2017 in Geauga County *(Source: Ohio Public Health Data Warehouse, 2015-2017).*

The following graph shows Geauga County, Ohio, and U.S. age-adjusted mortality rates per 100,000 populations for prostate cancer in comparison with the Healthy People 2020 target objective. This graph shows:

- For the age-adjusted mortality rate for prostate cancer, the Geauga County rate was higher than the Ohio and U.S. rate, and the Healthy People 2020 target objective.



Note: Healthy People 2020's target rate and the U.S. rate is for adults aged 45 years and older.
(Sources: Healthy People 2020, Ohio Public Health Data Warehouse 2015-2017, CDC Wonder 2015-2017)

Screening for Prostate Cancer

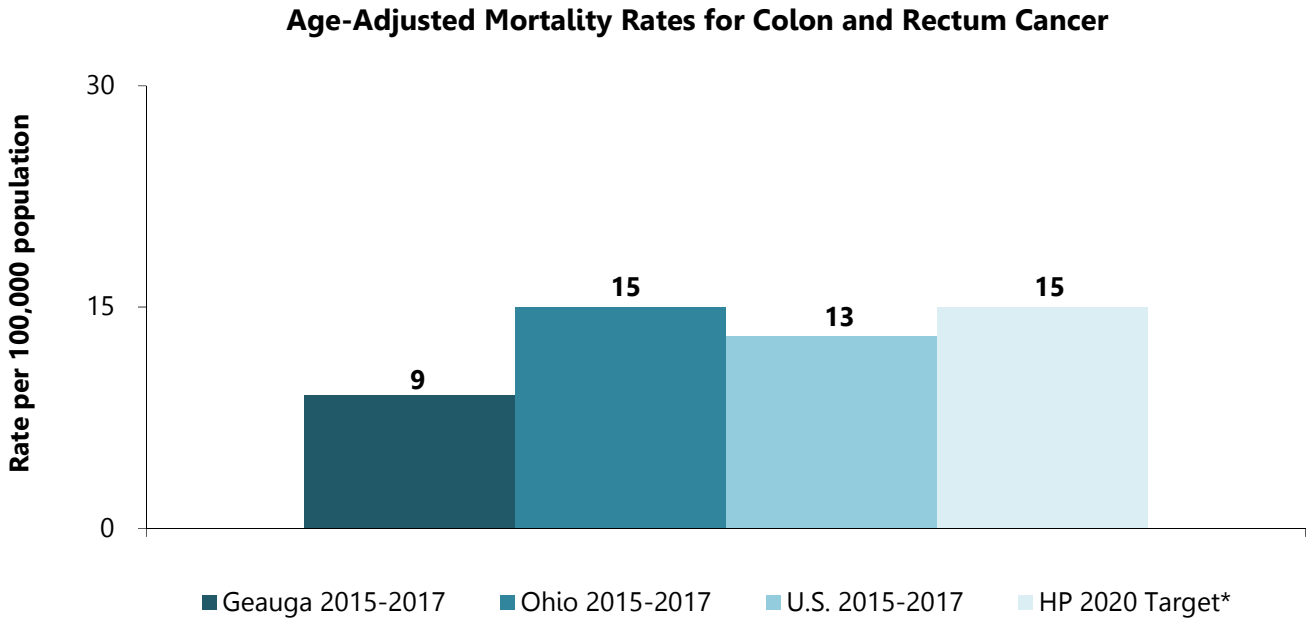
- The U.S. Preventive Services Task Force (USPSTF) is an organization made up of doctors and disease experts who look at research on the best way to prevent diseases and make recommendations on how doctors can help patients avoid diseases or find them early.
- In 2018 The USPSTF made the following recommendations about prostate cancer screening:
  - Men who are 55 to 69 years old should make individual decisions about being screened for prostate cancer with a prostate specific antigen (PSA) test.
  - Before deciding, men should talk to their doctor about the benefits and harms of screening for prostate cancer, including the benefits and harms of other tests and treatment.
  - Men who are 70 years old and older should not be screened for prostate cancer routinely.
- The goal of screening for prostate cancer is to find cancers that may be at high risk for spreading if not treated, and to find them early before they spread. However, most prostate cancers grow slowly or not at all.
- Screening men age 55 to 69 years of age may prevent about 1 death for every 1,000 men screened.
- Screening may prevent 3 men from developing prostate cancer that spreads to other places in the body for every 1,000 men screened.

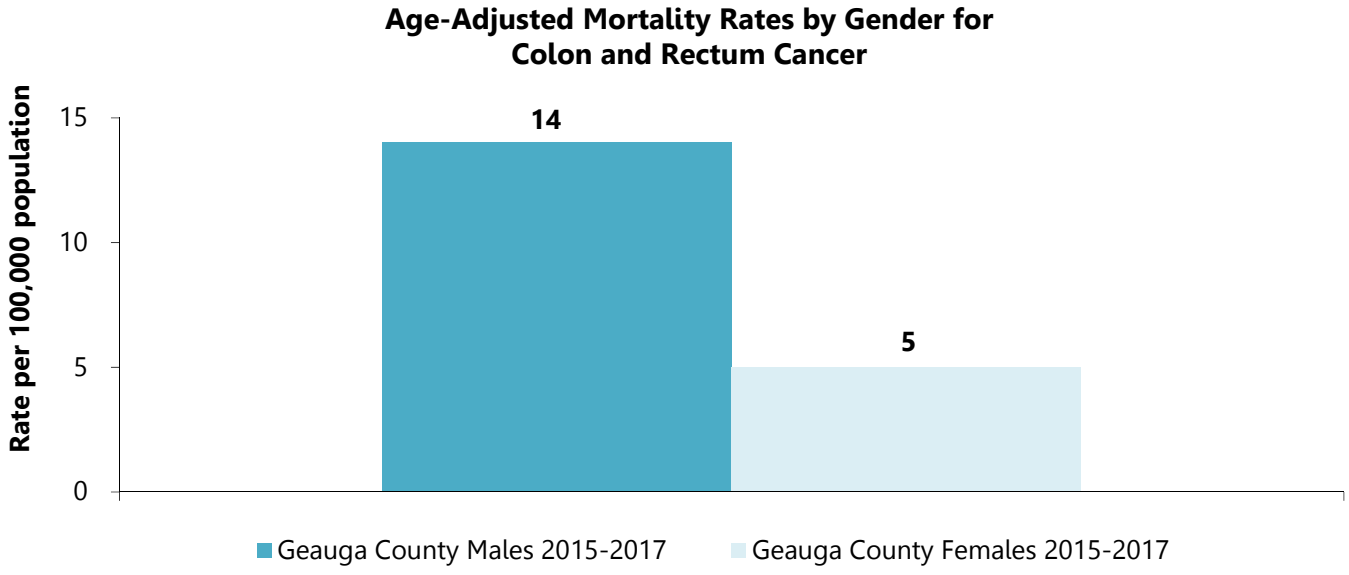
(Source: Center for Disease Control and Prevention, What Are the Benefits and Harms of Screening? Updated on June 11, 2018)

Colon and Rectum Cancers

- Fifty-eight percent (58%) of adults ages 50 and over had a colonoscopy or sigmoidoscopy in the past five years.
- Colon and rectum cancer deaths accounted for 6% of all male and female cancer deaths from 2015-2017 in Geauga County *(Source: Ohio Public Health Data Warehouse, 2015-2017).*

The following graphs show Geauga County, Ohio, and U.S. age-adjusted mortality rates per 100,000 populations for colon and rectum cancer in comparison with the Healthy People 2020 objective as well as Geauga County age-adjusted mortality rates for colon and rectum cancer by gender.





(Sources: Healthy People 2020, Ohio Public Health Data Warehouse 2015-2017)

Colorectal Cancer: Risk Factors

- Your risk of getting colorectal cancer increases as you get older. More and 90% of cases occur in people who are 50 years old or older.
- Other risk factors include:
  - Inflammatory bowel disease such as Crohn's disease or ulcerative colitis.
  - A personal or family history of colorectal cancer or colorectal polyps.
  - A genetic syndrome such as familial adenomatous polyposis (FAP) or hereditary non-polyposis colorectal cancer (Lynch syndrome).
- Lifestyle factors that may contribute to an increased risk of colorectal cancer include:
  - Lack of regular physical activity.
  - A diet low in fruits and vegetables.
  - A low-fiber and high-fat diet or a diet high in processed meats.
  - Overweight and obesity.
  - Alcohol consumption.
  - Tobacco use.

(Source: CDC, Colorectal (Colon) Cancer, updated January 1, 2019)

Chronic Disease: Asthma

Key Findings

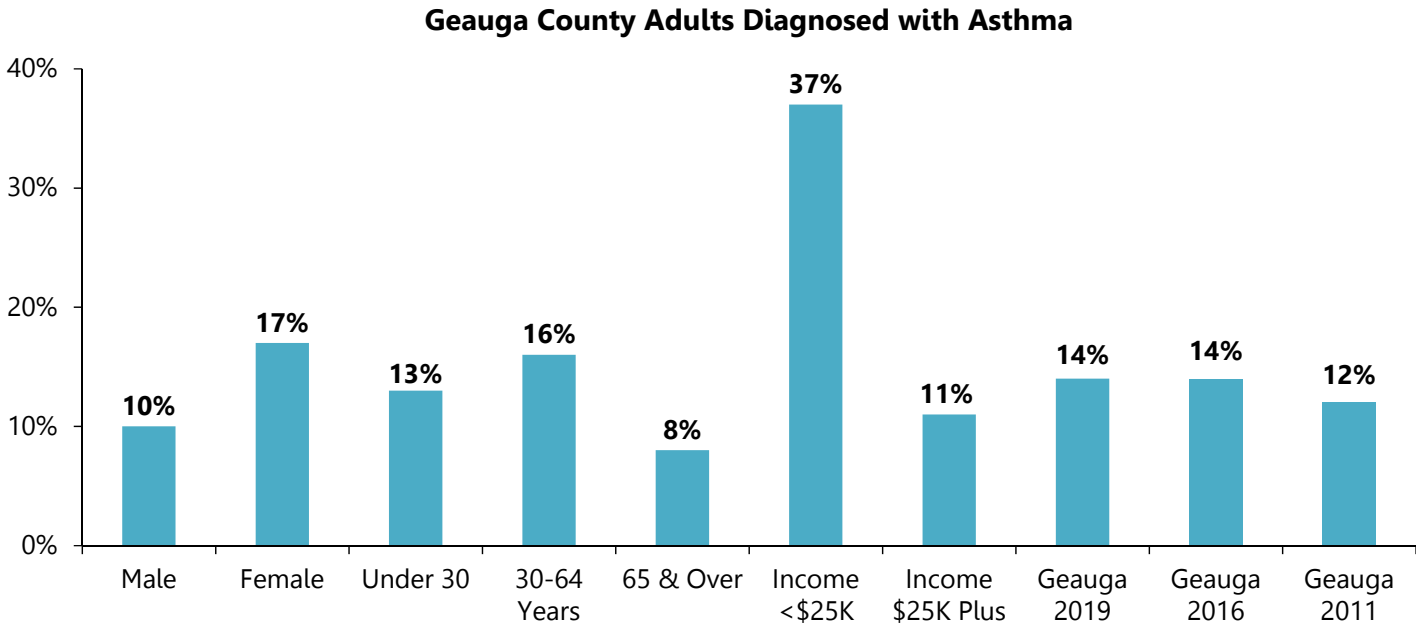
Fourteen percent (14%) of Geauga County adults had been told by a doctor, nurse, or other health professional that they had asthma, increasing to 37% of those with income less than $25,000.

9,501 Geauga adults had been diagnosed with asthma in their lifetime.

Asthma

- In 2019, 14% of Geauga County adults had been told by a doctor, nurse, or other health professional that they had asthma, increasing to 37% of those with incomes less than $25,000.
- There are several important factors that may trigger an asthma attack. Some of these triggers are tobacco smoke, dust mites, outdoor air pollution, cockroach allergens, pets, mold, smoke from burning wood or grass, infections linked to the flu, colds, and respiratory viruses *(Source: CDC, Asthma, 2017).*

The following graph shows the percentage of Geauga County adults who were diagnosed with asthma. An example of how to interpret the information includes: 14% of Geauga County adults were diagnosed with asthma, including 10% of males and 17% of females.



Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Had ever been told they have asthma	12%	14%	14%	14%	14%

Chronic Disease: Diabetes

Key Findings

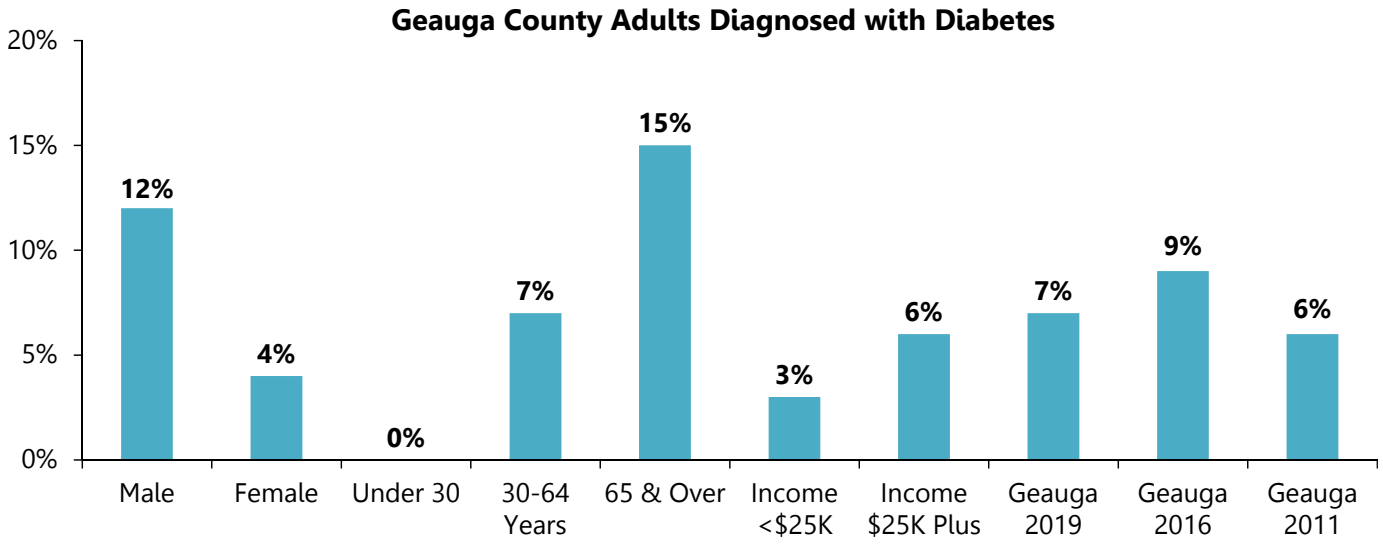
Seven percent (7%) of Geauga County adults had been diagnosed with diabetes, increasing to 15% of those over the age of 65.

4,750 Geauga adults had been diagnosed with diabetes in their lifetime.

Diabetes

- Seven percent (7%) of Geauga County adults had been diagnosed with diabetes, increasing to 15% of those over the age of 65.
- Less than one percent (<1%) of adults were diagnosed with pregnancy related diabetes.
- Five percent (5%) of adults had been diagnosed with pre-diabetes or borderline diabetes.
- Diabetics were using the following to treat their diabetes:
  - Checking A1C annually (81%)
  - Checking blood sugar (70%)
  - Annual vision exam (70%)
  - Diet control (69%)
  - 6-month checkup with provider (69%)
  - Checking their feet (63%)
  - Diabetes pills (58%)
  - Exercise (48%)
  - Insulin (33%)
  - Dental exam (23%)
  - Use injectables (8%)
  - Take a class (8%)
- Geauga County adults diagnosed with diabetes also had one or more of the following characteristics or conditions:
  - 65% had been diagnosed with high blood pressure
  - 62% had been diagnosed with high blood cholesterol
  - 44% were obese
  - 40% were overweight
  - 19% rated their health as fair or poor

The following graph shows the percentage of Geauga County adults who were diagnosed with diabetes. An example of how to interpret the information includes: 7% of adults were diagnosed with diabetes, including 12% of males and 15% of adults ages 65 and older.



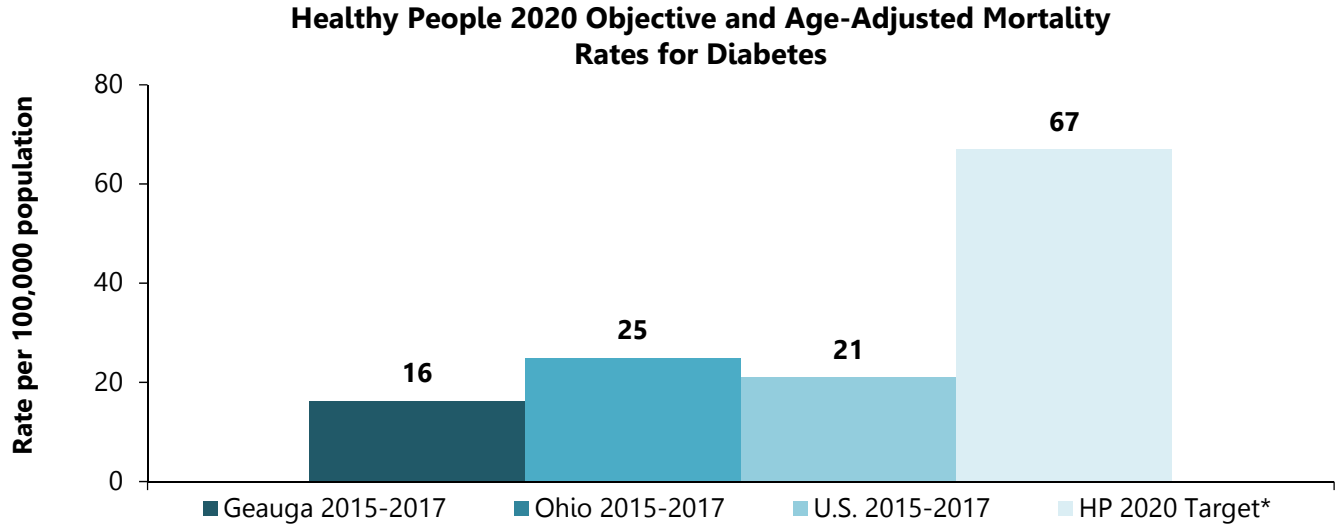
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adult Comparisons	Geauga County 2011	Geauga County 2016	Geauga County 2019	Ohio 2017	U.S. 2017
Ever been told by a doctor they have diabetes (not pregnancy-related)	6%	9%	7%	11%	11%
Ever been diagnosed with pregnancy-related diabetes	1%	N/A	<1%	1%	1%
Ever been diagnosed with pre-diabetes or borderline diabetes	N/A	5%	5%	2%	2%

N/A - Not Available

The following graph shows the Geauga County, Ohio and U.S. age-adjusted mortality rates per 100,000 population for diabetes in comparison to the Healthy People 2020 objective. The graph shows:

- When age differences are accounted for, Geauga County had a lower diabetes mortality rate than the Ohio and U.S. rate, as well as the Healthy People 2020 target objective.



**Note: The Healthy People 2020 rate is for all diabetes-related deaths*
(Source: Ohio Public Health Data Warehouse, 2015-2017, CDC Wonder, 2015-2017, Healthy People 2020)

Chronic Disease: Quality of Life

Key Findings

Twenty percent (20%) of Geauga County adults were limited in some way because of a physical, mental, or emotional problem. The most limiting health problems were back or neck problems (46%); arthritis/rheumatism (40%); chronic pain (21%); and fitness level (19%).

Impairments and Health Problems

- One-fifth (20%) of Geauga County adults were limited in some way because of a physical, mental or emotional problem, increasing to 37% of those with incomes less than $25,000. Adults were limited by the following: physical problems (23%), emotional problems (1%), and mental problems (1%).

- Among those who were limited in some way, the following most limiting problems or impairments were reported:
  - Back or neck problems (46%)
  - Arthritis/rheumatism (40%)
  - Chronic pain (21%)
  - Fitness level (19%)
  - Walking problems (17%)
  - Fractures, bone/joint injuries (14%)
  - Sleep problems (14%)
  - Stress, depression, anxiety, or emotional problems (12%)
  - Chronic illness (11%)
  - Lung/breathing problems (11%)
  - Hearing problems (10%)
  - Eye/vision problems (9%)
  - Memory loss (4%)
  - Confusion (3%)
  - Dental problems (3%)
  - Substance dependency (2%)
  - Mental health illness/disorder (2%)
  - Learning disability (1%)
  - Other impairments/problems (11%)

- Geauga County adults were responsible for providing regular care or assistance to the following:
  - Multiple children (23%)
  - An elderly parent or loved one (10%)
  - A friend, family member or spouse with a health problem (5%)
  - Grandchildren (4%)
  - A friend, family member or spouse with a mental health issue (3%)
  - A friend, family member or spouse with dementia (3%)
  - An adult child (2%)
  - Someone with special needs (2%)
  - Children with discipline issues (1%)

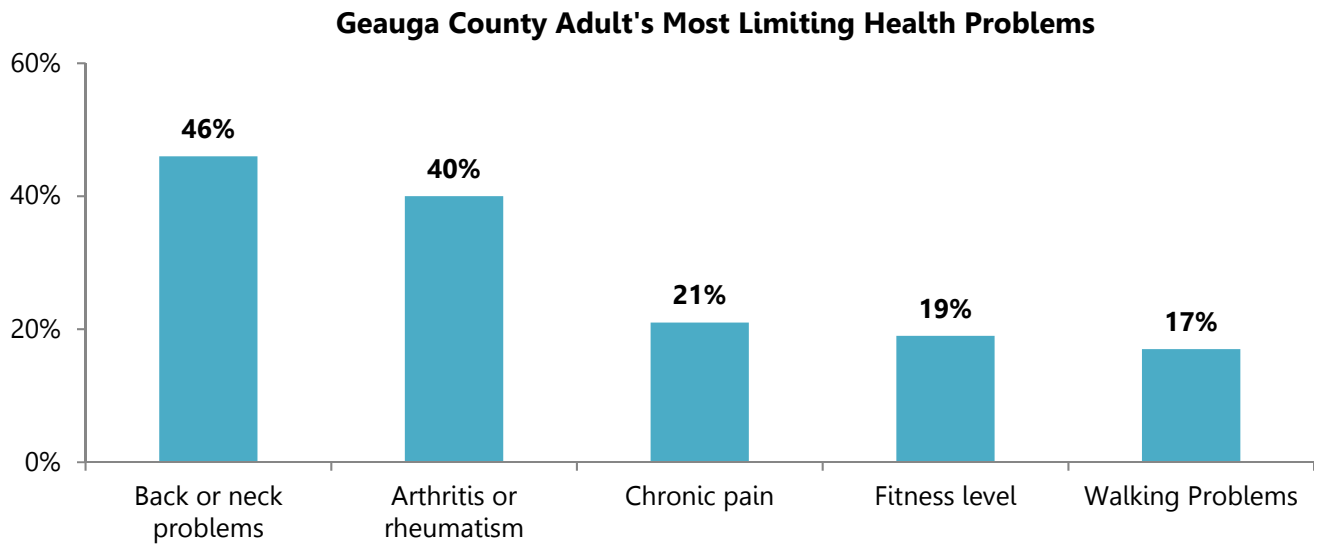
- Six percent (6%) of adults reported that themselves or an immediate family member was mentally or physically disabled. As a result of the disability, adults reported the following applied to themselves or an immediate family member:
  - Themselves or the individual was able to understand and speak their needs (80%)
  - They felt there were community resources available to handle the individual's or their own needs in case of an emergency (55%)
  - They felt prepared to handle the individual's or their own needs in case of an emergency (50%)
  - Themselves or the individual had access to needs within the community (45%)
  - Themselves or the individual had physical restrictions (38%)
  - Themselves or the individual had emotional issues related to their disability (15%)
  - The police and/or fire department had them or the individual registered with 911 or with their departments in case of an emergency (15%)

- As a result of someone in the household having confusion or memory loss, adults reported they needed the most assistance in the following areas:
  - Safety (1%)
  - Household activities (1%)
  - Transportation (1%)
  - Personal care (1%)
  - Assistance in another area (2%)

- Six percent (6%) of adults reported they did not need assistance in any area, while 83% of adults reported they did not have anyone with confusion or memory loss living in their household.

- Twenty percent (27%) of Geauga County adults had fallen in the past 6 months. Of those adults who fell, they reported falling due to the following:
  - Same-level fall (slipping, tripping or stumbling) (37%)
  - Unexpected fall (23%)
  - Stairs (6%)

The following graph shows the percentage of Geauga County adults' most limiting health problems.



Social Conditions: Social Determinants of Health

Key Findings

Nine percent (9%) of Geauga County adults had four or more Adverse Childhood Experiences (ACEs) in their lifetime. Seven percent (7%) of adults had experienced at least one issue related to transportation in the past year. Fifty-six percent (56%) of Geauga County adults kept a firearm in or around their home. Four percent (4%) of adults reported they were unlocked and loaded.

Economic Stability

- Four percent (4%) of Geauga County adults needed help meeting their general daily needs such as food, clothing, shelter, or paying for utilities in the past month, increasing to 11% of those with incomes less than $25,000.
- In the past month, 2% of adults were concerned about having enough food for themselves or their family, increasing to 7% of those with incomes less than $25,000.
- Geauga County adults reported that themselves or someone they knew experienced the following housing situations:
  - Had stable housing (69%)
  - Had housing, but worried about losing housing in the future (12%)
  - Were homeless (4%)
- Geauga County adults attempted to get assistance from the following:
  - Geauga County Job and Family Services (6%)
  - Ravenwood Health (3%)
  - 9-1-1 (3%)
  - Geauga County Board of Developmental Disabilities (2%)
  - A friend or family member (2%)
  - Help Me Grow (2%)
  - Church (1%)
  - Catholic charities (1%)
  - Geauga County Board of Mental Health and Recovery Services (1%)
  - Geauga Public Health (<1%)
  - Lake-Geauga Recovery Centers (<1%)
  - United Way (<1%)
- Three percent (3%) of Geauga County adults looked for assistance but did not receive any.
- Geauga County adults received assistance for the following in the past year:
  - Healthcare (9%)
  - Medicare (8%)
  - Prescription assistance (7%)
  - Dental care (5%)
  - Mental illness issues, including depression (5%)
  - Food (4%)
  - Free tax preparation (3%)
  - Affordable child care (3%)
  - Home repair (2%)
  - Utilities (2%)
  - Rent/mortgage (2%)
  - Employment (1%)
  - Septic/well repairs (1%)
  - Transportation (1%)
  - Diapers (1%)
  - Legal aid services (1%)
  - Post incarceration transition issues (<1%)
  - Drug or alcohol addiction (<1%)
  - Credit counseling (<1%)
  - Clothing (<1%)
  - Gambling addiction (<1%)

- The median household income in Geauga County was $77,104. The U.S. Census Bureau reports median income levels of $54,077 for Ohio and $60,336 for the U.S. *(Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017).*
- Approximately 7% of all Geauga County residents were living in poverty, and 7.2% of children and youth ages 0-17 were living in poverty *(Source: U.S. Census Bureau, Small Area Income and Poverty Estimates, 2017).*
- The unemployment rate for Geauga County was 4.4 as of July 2019 *(Source: Ohio Department of Job and Family Services, Office of Workforce Development, Bureau of Labor Market Information).*
- There were 35,121 housing units. Rent in Geauga County cost an average of $813 per month *(Source: U.S. Census Bureau, American Community Survey, 2013-2017).*

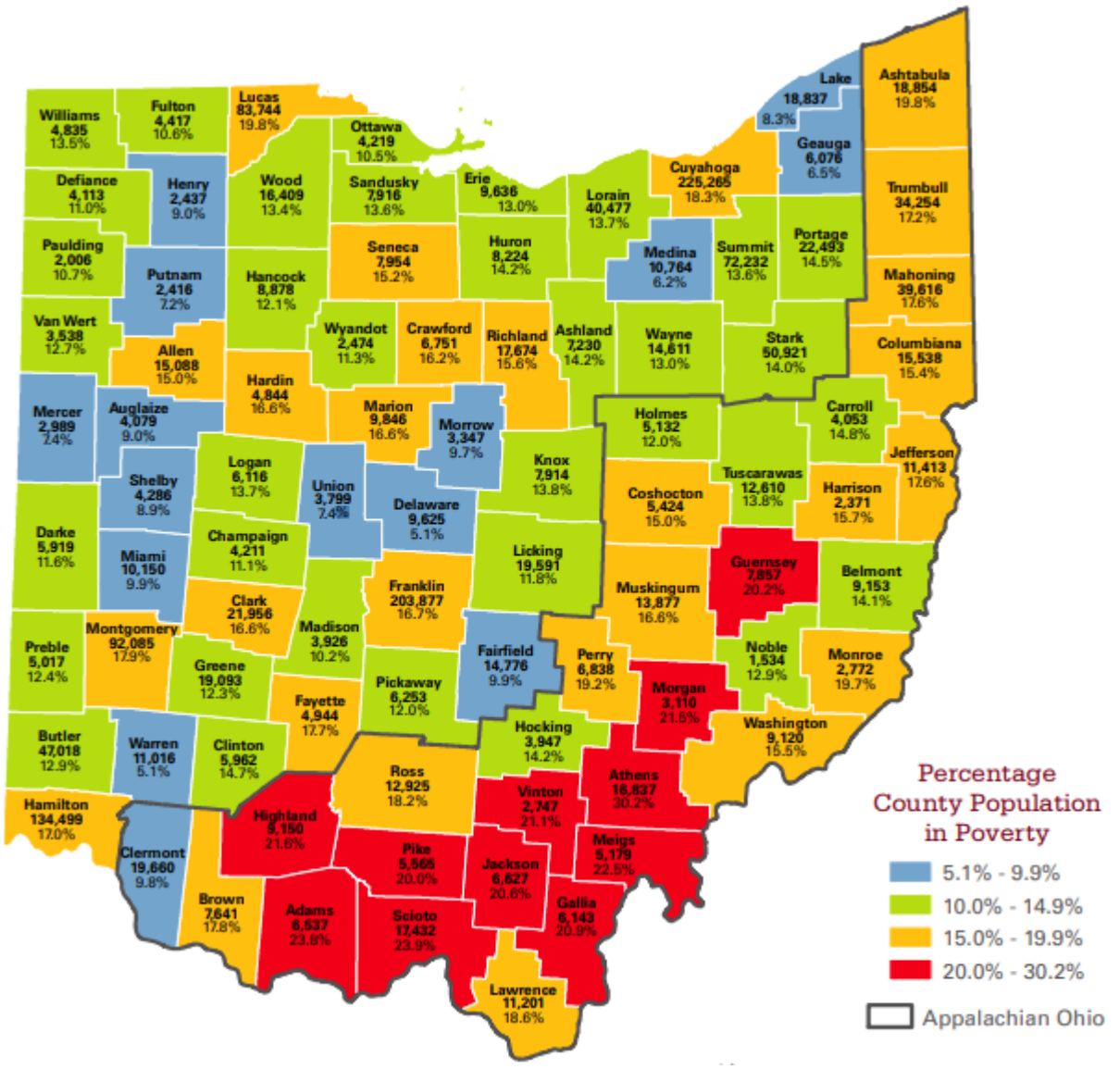
Geauga County adults and their loved ones needed the following assistance in the past year:

Type of Assistance	Needed Assistance	Received Assistance
Healthcare	10%	9%
Medicare	9%	8%
Prescription assistance	8%	7%
Dental care	8%	5%
Mental illness issues, including depression	6%	5%
Food	5%	4%
Free tax preparation	5%	3%
Affordable child care	4%	3%
Utilities	4%	2%
Home repair	6%	2%
Rent/mortgage	3%	2%
Transportation	2%	1%
Employment	2%	1%
Diapers	2%	1%
Legal aid services	3%	1%
Septic/well repairs	2%	1%
Drug or alcohol addiction	1%	<1%
Clothing	1%	<1%
Gambling addiction	1%	<1%
Credit counseling	2%	<1%
Post incarceration transition issues	1%	<1%
Unplanned pregnancy	1%	0%

The map below shows the variation in poverty rates across Ohio during the 2013-17 period.

- The 2013 to 2017 American Community Survey 5-year estimates that approximately 1,683,890 Ohio residents, or 14.9% of the population, were in poverty.
- From 2013 to 2017, 6,076 or 6.5% of Geauga County residents were in poverty.

Estimated Poverty Rates in Ohio by County (2013-2017)



(Source: 2013-2017 American Community Survey 5-year estimates, as compiled by Ohio Development Services Agency, Office of Research, Ohio Poverty Report, February 2019)

Health and Health Care

- Sixty-eight percent (68%) of Geauga County adults visited a doctor for a routine checkup in the past year, increasing to 87% of those over the age of 65.
- In the past year, 94% Geauga County adults had health care coverage, while 6% of adults were uninsured.
- See the Health Perceptions, Health Care Coverage, and Health Care Access sections for further health and health care information for Geauga County adults.

Education

- Geauga County adults reported that themselves or an immediate family member had the following literacy needs:
  - Learning computer skills (7%)
  - Reading and understanding instructions (3%)
  - Completing a job application (1%)
  - Reading a map, signs, food ingredient labels, etc. (1%)
- Ninety percent (90%) of Geauga County adults 25 years and older had a high school diploma or higher *(Source: U.S. Census Bureau, American Community Survey, 2013-2017).*
- Thirty-eight percent (38%) of Geauga County adults 25 years and older had at least a bachelor's degree *(Source: U.S. Census Bureau, American Community Survey, 2013-2017).*

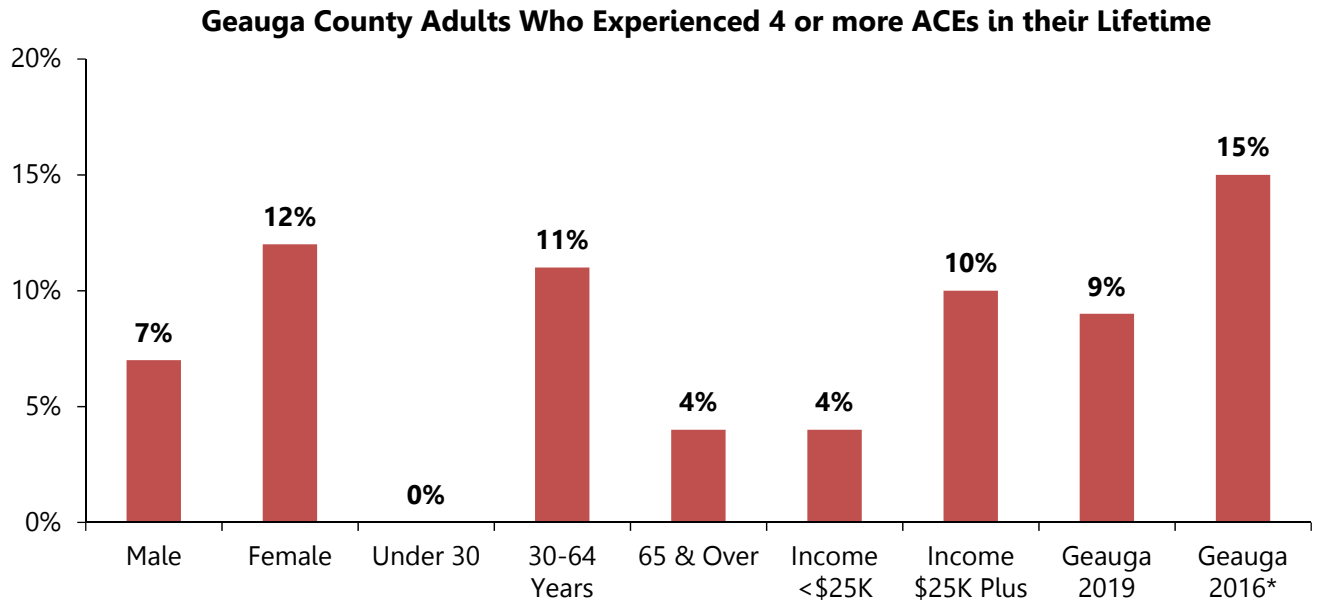
Social and Community Context

- Geauga County adults experienced the following in the past 12 months:
  - A close family member went to the hospital (39%)
  - Death of a family member or close friend (29%)
  - They were a caregiver (13%)
  - Had a decline in their own health (9%)
  - Had bills they could not pay (7%)
  - Someone in their household lost their job or had their hours at work reduced (7%)
  - Someone close to them had a problem with drinking or drugs (6%)
  - Had their household income reduced by 50% (3%)
  - Moved to a new address (3%)
  - Had someone homeless living with them (3%)
  - Became separated or divorced (1%)
  - Their child was threatened or abused by someone physically, emotionally, sexually or verbally (1%)
  - Threatened or abused by someone physically, emotionally, sexually, and/or verbally (1%)
  - Witnessed someone in their family being hit or slapped (<1%)
- Three percent (3%) of Geauga County adults were abused in the past year. They were abused by the following: a spouse or partner (2%), someone from outside their home (2%), a child (<1%), and someone else (1%).
- Of those who were abused, they reported the following types abuse:
  - Verbal abuse (62%)
  - Emotional abuse (33%)
  - Mental abuse (31%)
  - Financial abuse (23%)
  - Spiritual abuse (15%)
  - Physical abuse (8%)
  - Sexual abuse (8%)
  - Abuse through electronic methods [texts, social media, etc.] (8%)

- Geauga County adults experienced the following Adverse Childhood Experiences (ACEs):
  - Lived with someone who was a problem drinker or alcoholic (21%)
  - Their parents became separated or were divorced (19%)
  - A parent or adult in their home swore at, insulted, or put them down (17%)
  - Lived with someone who was depressed, mentally ill, or suicidal (15%)
  - Someone at least 5 years older than them or an adult touched them sexually (11%)
  - Their family did not look out for each other, feel close to each other, or support each other (9%)
  - Their parents or adults in their home slapped, hit, kicked, punched, or beat each other up (8%)
  - A parent or adult in their home hit, beat, kicked, or physically hurt them (7%)
  - Lived with someone who used illegal street drugs, or who abused prescription medications (7%)
  - Someone at least 5 years older than them or an adult tried to make them touch them sexually (4%)
  - Lived with someone who served time or was sentenced to serve time in prison, jail or correctional facility (3%)
  - They didn't have enough to eat, had to wear dirty clothing, and had no one to protect them (3%)
  - Someone at least 5 years older than them or an adult forced them to have sex (2%)
- Nine percent (9%) of Geauga County adults had 4 or more ACEs in their lifetime.

6,108 Geauga County adults experienced 4 or more ACEs in their lifetime.

The following graph shows the percentage of Geauga County adults who had experienced 4 or more Adverse Child Experiences (ACEs) in their lifetime. An example of how to interpret the information in the graph includes: 9% of all Geauga County adults had experienced 4 or more ACEs in their lifetime, including 12% of females.



**The 2016 Geauga County Health Assessment reported those adults who had experienced 3 or more ACEs in their lifetime.*
Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

The table below indicates correlations between those who experienced four or more ACEs in their lifetime and participating in risky behaviors, as well as other activities and experiences. An example of how to interpret the information includes: 56% of those who experienced four or more ACEs were binge drinkers, compared to 30% of those who did not experience any ACEs.

Behaviors of Geauga County Adults

Experienced 4 or More ACEs vs. Did Not Experience Any ACEs

Adult Behaviors	Experienced 4 or More ACEs	Did Not Experience Any ACEs
Binge drinker (drank 5 or more drinks for males and 4 or more for females on an occasion)	56%	30%
Current smoker (currently smoke on some or all days)	39%	6%
Used marijuana or hashish in the past 6 months	13%	3%
Medication misuse in the past 6 months	9%	6%
Contemplated suicide in the past 12 months	9%	1%
Had sexual intercourse with two or more people in the past year	6%	2%

Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

Adverse Childhood Experiences (ACEs)

- Childhood abuse, neglect, and exposure to other traumatic stressors which we term adverse childhood experiences (ACE) are common. The most common are separated or divorced parents, verbal, physical or sexual abuse, witness of domestic violence, and having a family member with depression or mental illness.
- According to the CDC, 59% of people surveyed in five states in 2009 reported having had at least one ACE while 9% reported five or more ACEs.
- The short and long-term outcomes of these childhood exposures include a multitude of health and social problems such as:
  - Depression
  - Fetal death
  - Illicit drug use
  - Liver disease
  - STDs
  - Multiple sexual partners
  - Alcoholism and alcohol abuse
  - COPD
  - Unintended pregnancies
  - Suicide attempts
  - Early initiation of smoking
  - Risk for intimate partner violence
- Given the high prevalence of ACEs, additional efforts are needed at the state and local level to reduce and prevent childhood maltreatment and associated family dysfunction in the US.
- Studies are finding that there is a repetitive does-response relationship between ACE and levels of exposure. A dose-response means that as the dose of the stressor increases, the intensity of the outcome will increase as well. As the number of ACEs increase so does the risk for the following:
  - Myocardial Infarction
  - Mental Distress
  - Unemployment
  - Diabetes
  - Asthma
  - Disability
  - Stroke
  - Lowered educational attainment

(Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey ACE Data, 2016)

Neighborhood and Built Environment

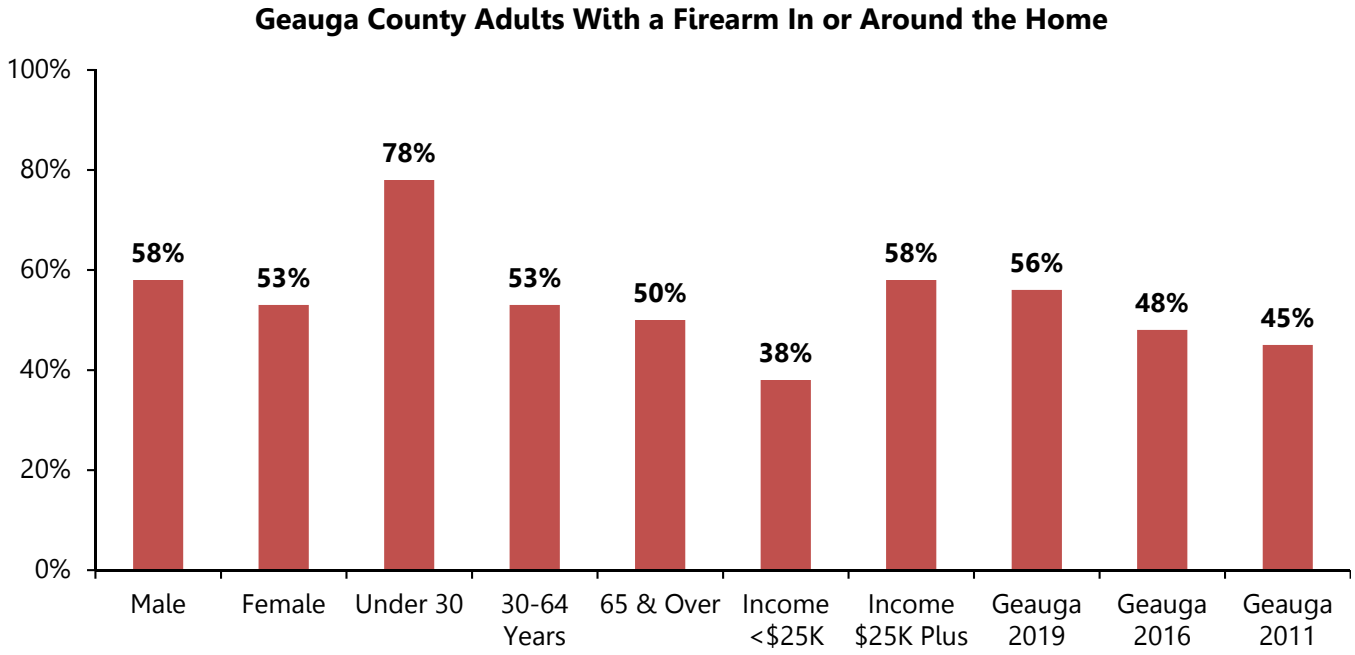
- Seven percent (7%) of Geauga County adults had the following transportation issues:
  - Did not have a car (3%)
  - Limited public transportation available or accessible (3%)
  - No driver's license/suspended license (2%)
  - Disabled (1%)
  - Did not feel safe to drive (1%)
  - Cost of public or private transportation (1%)
  - No public transportation available or accessible (1%)
  - Did not have car insurance (<1%)
  - Other car issues/expenses (2%)

- Three percent (3%) of adults reported they had more than one transportation issue.

Firearms

- Fifty-six percent (56%) of Geauga County adults kept a firearm in or around their home. Four percent (4%) of adults reported they were unlocked and loaded.

The following graph shows the percentage of Geauga County adults that had a firearm in or around the home. An example of how to interpret the information shown in the graph includes: 56% of all Geauga County adults had a firearm in or around the home, including 58% of males.

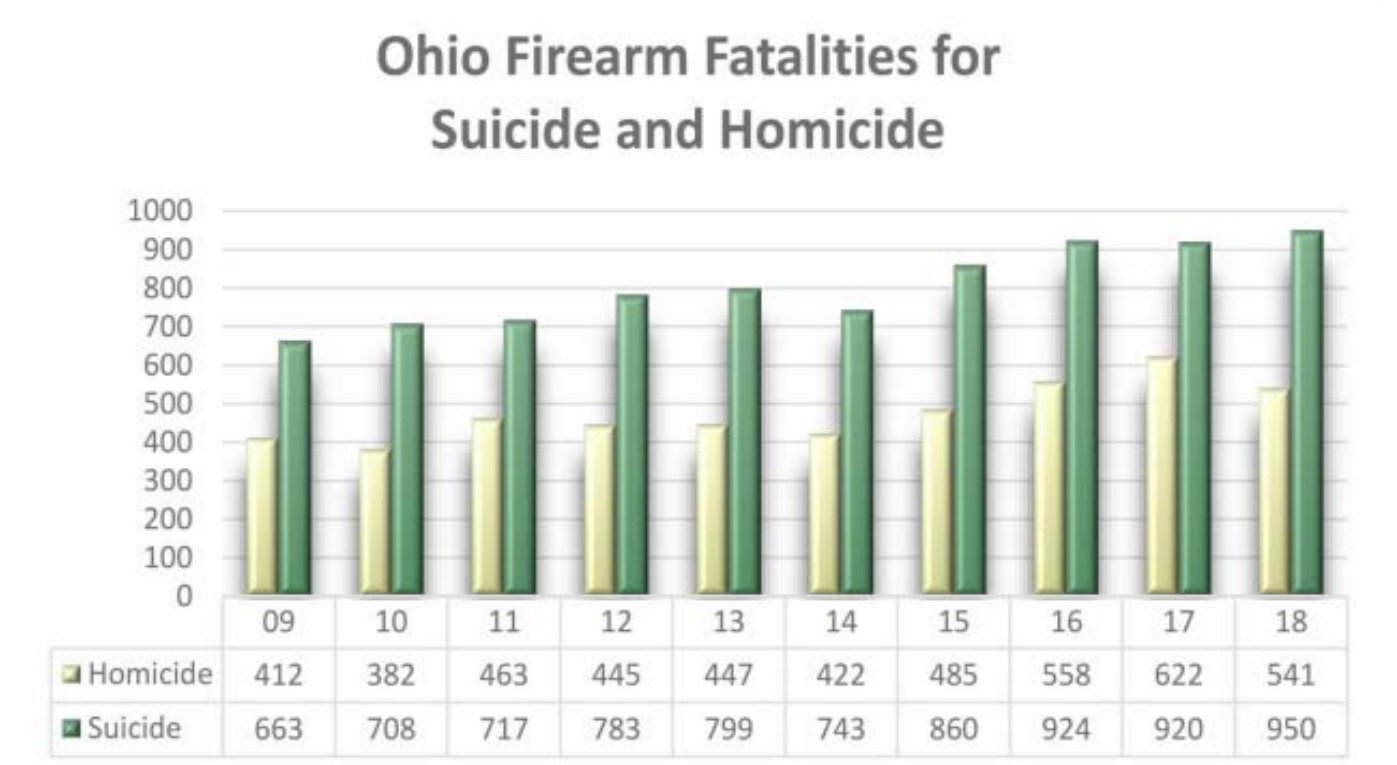


Note: Caution should be used when interpreting subgroup results as the margin of error for any subgroup is higher than that of the overall survey.

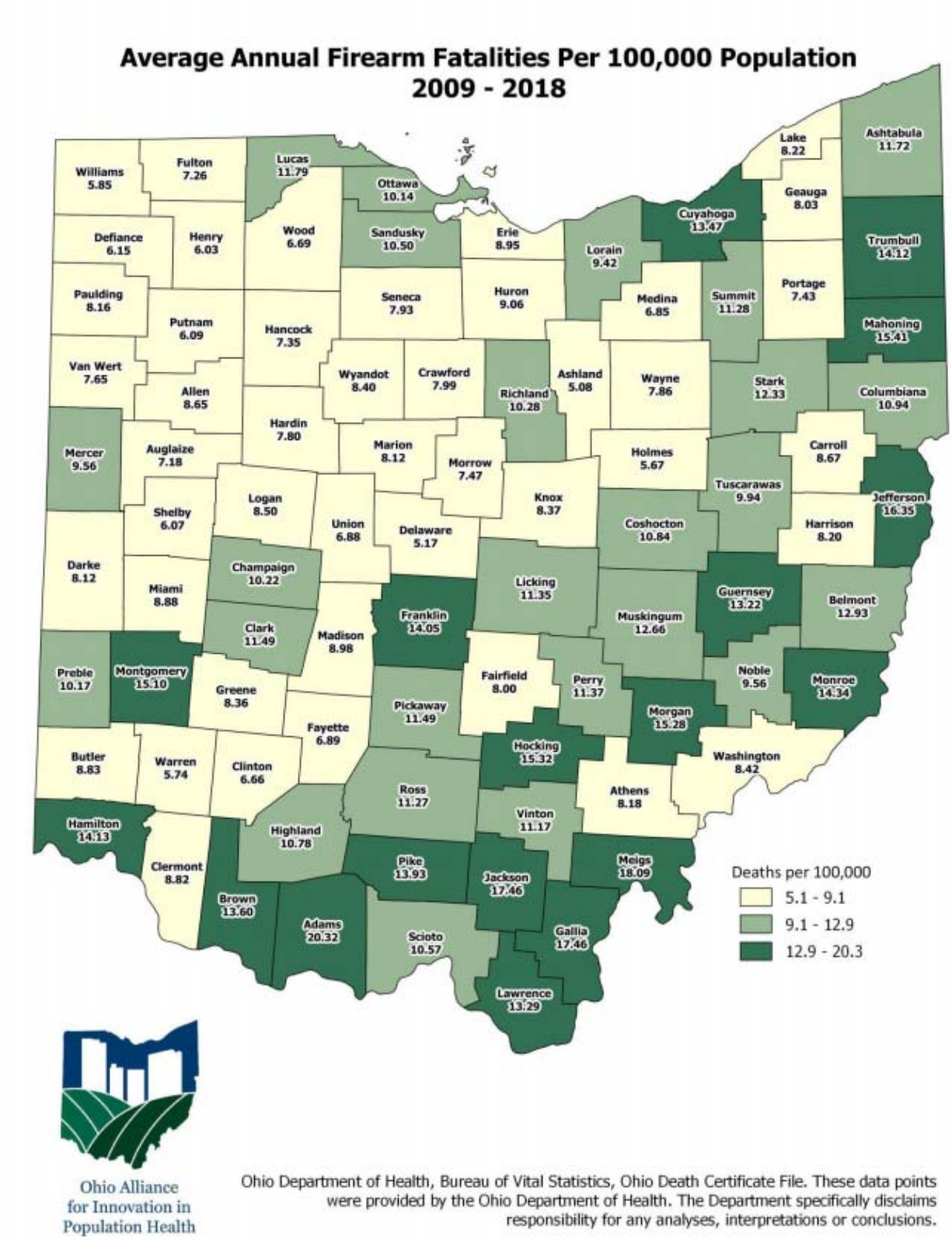
Ohio Alliance for Innovation and Population Health
Years of Lost Life: Firearm Fatalities
2009-2018

County	2010 Census	Total Firearm Fatalities	Average Annual Rate per 100,000	Rank Average Annual Rate Per 100,000	Years of life lost (YLL)	Rank Total YLL	Average Annual YLL Rate Per 100,000	Rank Average Annual YLL Rate Per 100,000
Geauga	93,389	75	8.03	63	2,298	36	246	71

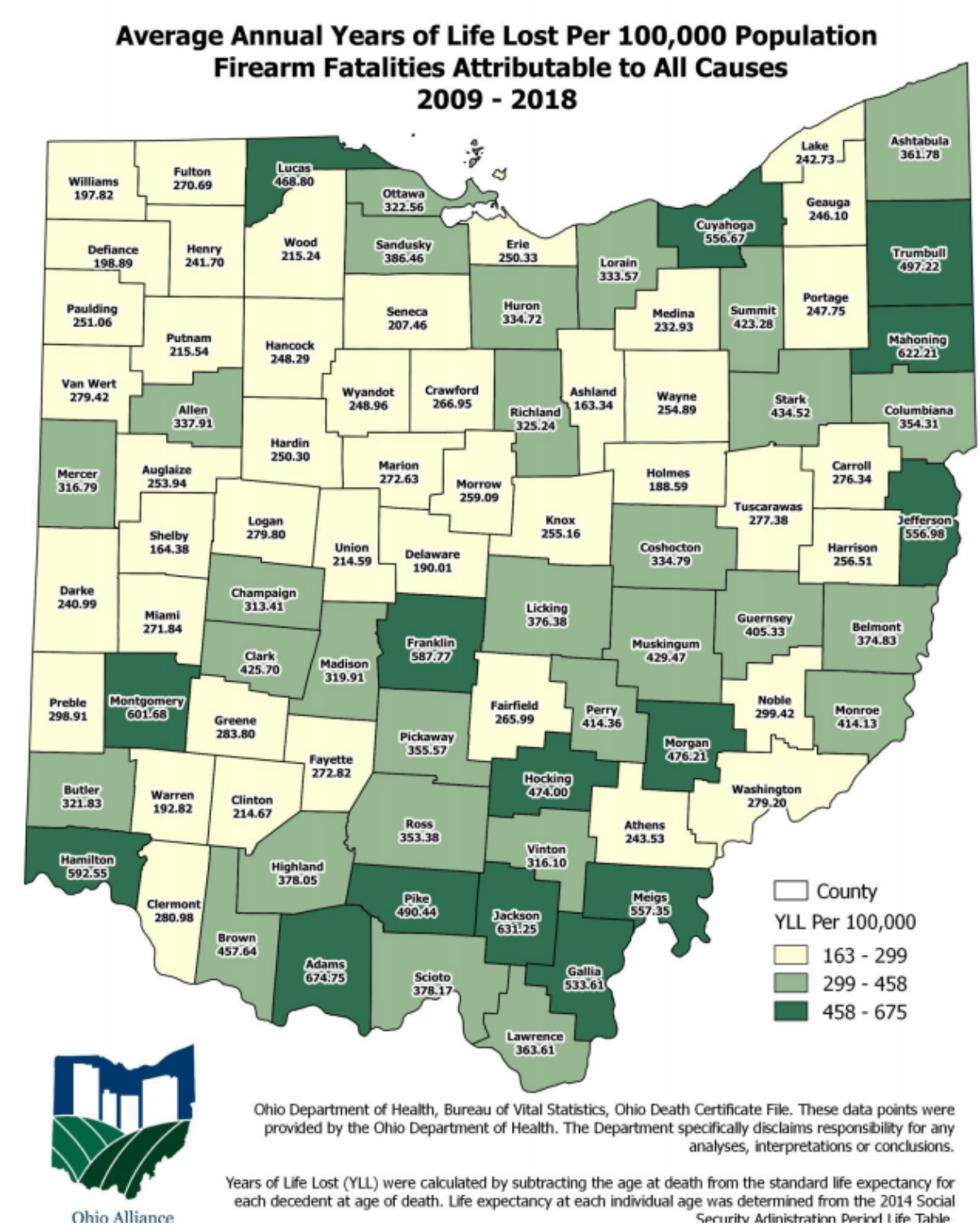
(Provided by Geauga Public Health)



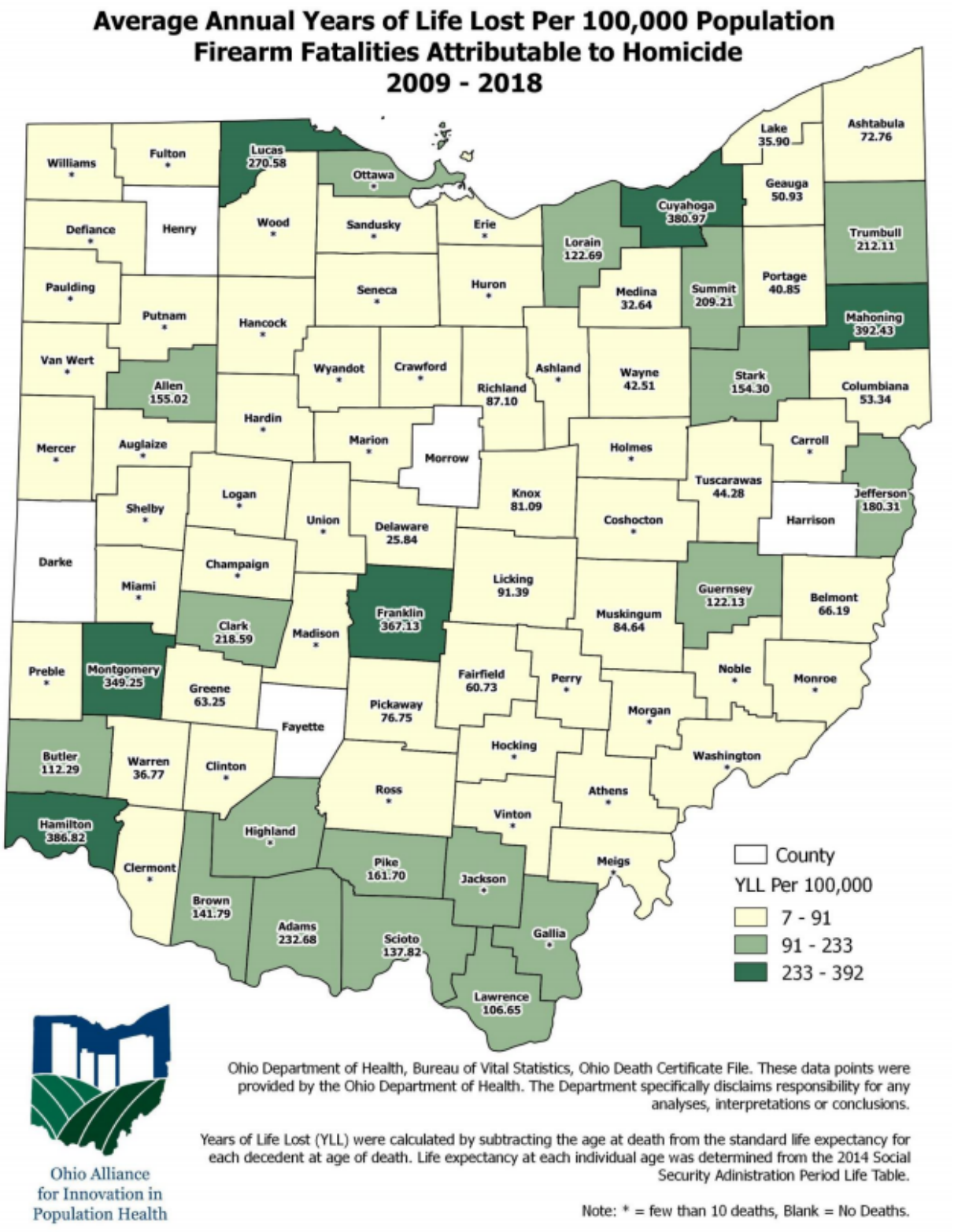
(Provided by Geauga Public Health)



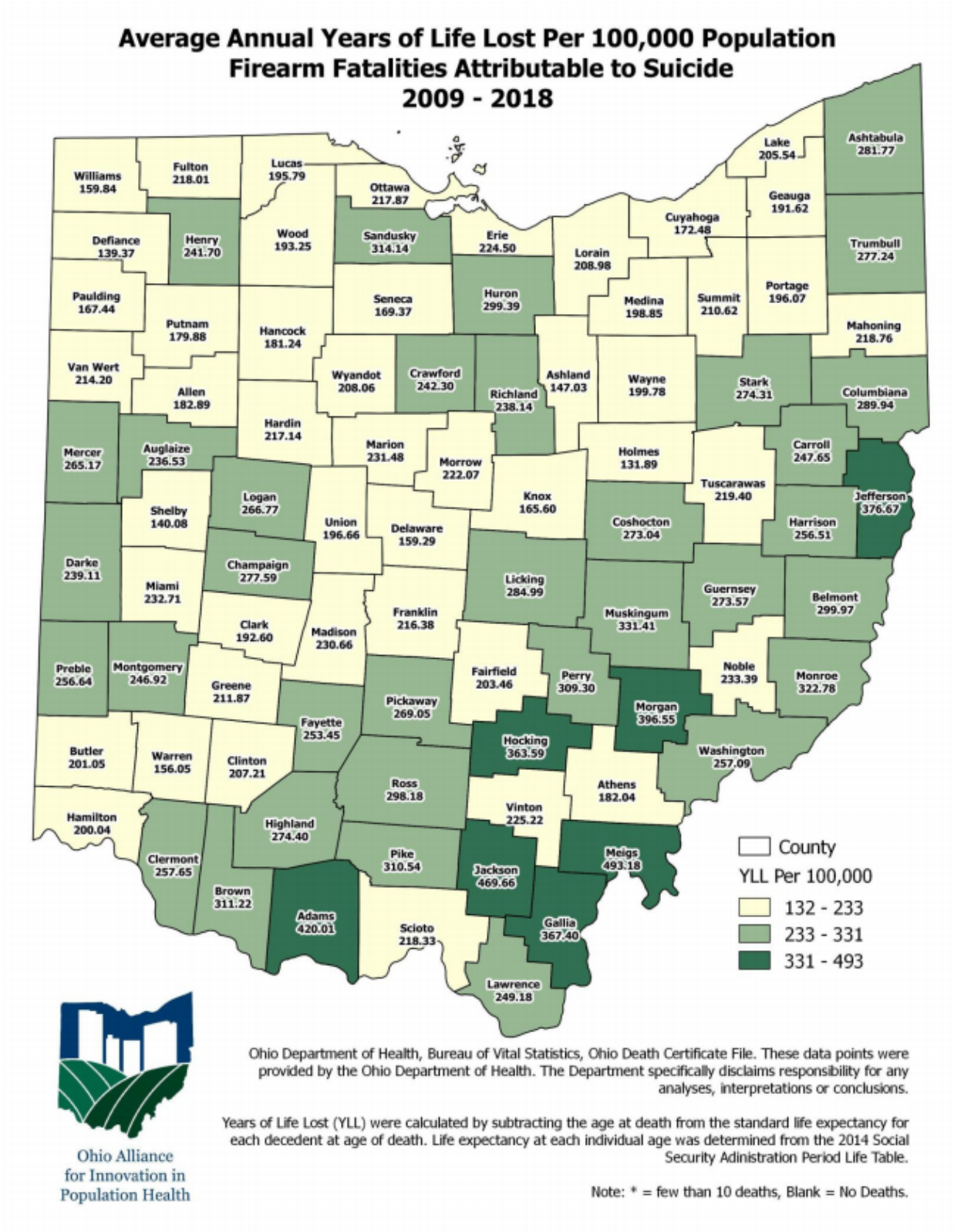
(Provided by Geauga Public Health)



(Provided by Geauga Public Health)



(Provided by Geauga Public Health)



(Provided by Geauga Public Health)

Project Summary and Key Findings

The Ohio Alliance for Innovation in Population Health has reviewed Ohio firearm fatality data for the decade beginning January 1st, 2009 and ending December 31st, 2018. The goal of the study was to determine the extent to which firearm related fatalities contributed to premature mortality in Ohio for the ten-year period. For the purposes of this study, firearm fatalities were reported by homicide, suicide and accident. Final data from the Ohio Department of Health, Bureau of Vital Statistics, Ohio Death Certificate file from 2009 through 2017 and preliminary for 2018 data were used for the analysis. Years of Life Lost (YLL) were calculated for each decedent by subtracting the age of death from the expected years of life. This calculation is based on period life tables produced by the Social Security Administration.

Key Findings

1. There were 484,122 years of life lost (YLL) accounted for by 13,001 firearm fatalities from 2009 through 2018.

2. In 2017, the peak year for firearm fatalities, Ohio experienced 59,515 years of life lost due to firearm fatalities. For purposes of comparison, there were 41,161 YLL for the baseline year of 2009.

3. In 2017 firearm fatalities had the effect of lowering the life span of an average Ohioan by .44 years.

4. Rural counties experienced the largest increase in YLL between the baseline and final year (51%), followed by metropolitan counties (34%), suburan counties (30%) and Appalachian counties (21%).

5. Overall, males accounted for 84% of YLL for the ten-year period, but females experienced a larger increase between the baseline and final year (44%) than males (32%).

6. The highest percentage of firearm related YLL was accounted for by Ohioans between the ages of 20 and 29 (34%), followed by Ohioans between the ages of 30 and 39 (20%).

7. Ohioans older than 60 recorded the highest rate of increase in firearm related YLL (80%).

8. White Ohioans accounted for 59% of firearm fatality YLL, followed by African American Ohioans (38%) and Other (4%). The rate of increase between the baseline year and final year was highest for other minorities (352%), followed by African Americans (33%) and Whites (32%).

9. Suicides accounted for 52% of all years of life lost due to firearm fatalities for the period, followed by homicides (46%), and accidents (1%).

(Provided by Geauga Public Health)

Social Conditions: Environmental Conditions

Key Findings

The top three environmental health issues for Geauga County adults that threatened their health in the past year were insects (9%), rodents (6%), and mold (6%). More than three-fifths (64%) of adults had a 3-day supply of nonperishable food for everyone in the household in preparation for a disaster.

Environmental Health

- Geauga County adults thought the following threatened their own health or their family's health in the past year:
  - Insects [mosquitos, ticks, flies] (9%)
  - Rodents [mice or rats] (6%)
  - Mold (6%)
  - Moisture issues (5%)
  - Unsafe water supply/wells (4%)
  - Air quality (3%)
  - Agricultural chemicals (3%)
  - Temperature regulation [heating/air conditioning] (3%)
  - Plumbing problems (2%)
  - Safety hazards (2%)
  - Chemicals found in household products (1%)
  - Sewage/waste water problems (1%)
  - Lyme disease (1%)
  - Fracking (1%)
  - Food safety/food borne illness (1%)
  - Bed bugs (<1%)
  - Lead paint (<1%)

6,108 Geauga County adults said insects threatened their or their family's health in the past year.

Disaster Preparedness

- Geauga County households had the following disaster preparedness supplies:
  - A working flashlight and working batteries (89%)
  - Cell phone (87%)
  - A working smoke detector (87%)
  - Cell phone with texting (84%)
  - Computer/tablet (81%)
  - 3-day supply of nonperishable food for everyone living in the household (64%)
  - 3-day supply of prescription medication for each person who takes prescribed medicines (53%)
  - Home land-line telephone (49%)
  - 3-day supply of water for everyone living in the household (47%)
  - Working battery-operated radio with working batteries (46%)
  - Generator (40%)
  - A communication plan (20%)
  - A disaster plan (11%)
  - A family disaster plan (10%)
- Six percent (6%) of Geauga County adults did not have any disaster preparedness supplies in their household.

Social Conditions: Parenting

Key Findings

Forty-two percent (42%) of parents discussed dating and relationships, and 40% discussed the negative effects of alcohol, tobacco, illegal drugs, or misusing prescription drugs with their 12-to-17 year-old in the past year.

Parenting

- In the past 12 months, Geauga County parents reported taking their children to the doctor at least once for the following:
  - Regular checkups (84%)
  - Dental visits (74%)
  - Vaccinnations (64%)
  - Injuries (34%)
  - Ear infections (23%)
  - Behavioral problems (10%)
  - Asthma (4%)
  - Head lice (4%)
  - Posionings (3%)
  - Other visits (59%)

- Parents missed work at least once in the past year due to the following:
  - Medical appointments (40%)
  - Illness or injuries (34%)
  - Unreliable/lack of child care (10%)
  - Behavioral/emotional problems (6%)
  - Asthma (2%)

- Parents in Geauga County reported their child did not receive all of the recommended immunization shots for his or her age for the following reasons:
  - Misconceptions of immunizations (5%)
  - Personal beliefs (4%)
  - Fear of adverse effects (3%)
  - Did not think immunization was necessary (3%)
  - Pre-existing health issues (2%)
  - Fear of immunization (1%)
  - Religious beliefs (1%)
  - Cost (1%)
  - Did not know where to go for childhood immunizations (1%)
  - Fear of needles (1%)
  - Other reasons (1%)

- Ninety-one percent (91%) of parents reported their child received all of the recommended immunization shots for their age.

- Parents discussed the following sexual health and other health topics with their 12-to-17-year-old in the past year:
  - Dating and relationships (42%)
  - Negative effects of alcohol, tobacco, illegal drugs, or misusing prescription drugs (40%)
  - Weight status (36%)
  - Use of e-cigarettes/vaping (33%)
  - Social media issues (33%)
  - Career plan/post-secondary education (32%)
  - Bullying (31%)
  - Volunteering (31%)
  - Birth control, condom use, safer sex, STD prevention (29%)
  - Abstinence and how to refuse sex (27%)
  - School or legal consequences of using tobacco, alcohol, or other drugs (25%)
  - Body image (25%)
  - Anxiety, depression, suicide (25%)
  - Refusal skills/peer pressure (24%)
  - Energy drinks (12%)

Appendix I: Health Assessment Information Sources

Source	Data Used	Website
American Cancer Society, Cancer Facts and Figures 2019	• 2019 Cancer Facts, Figures, and Estimates	https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/annual-cancer-facts-and-figures/2019/cancer-facts-and-figures-2019.pdf
American Cancer Society (ACS), 2016	• Summary of the American Cancer Society (ACS) Guidelines on Nutrition and Physical Activity	https://www.cancer.org/healthy/eat-healthy-get-active/acs-guidelines-nutrition-physical-activity-cancer-prevention/summary.html
American College of Cardiology	• 2018 ACC/AHA Guidelines on Cholesterol	https://www.acc.org/latest-in-cardiology/articles/2018/11/07/15/19/sat-1130am-guideline-on-the-management-of-blood-cholesterol
American College of Allergy, Asthma & Immunology	• Asthma Facts	https://acaai.org/news/facts-statistics/asthma
Behavioral Risk Factor Surveillance System, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Surveillance Branch, Centers for Disease Control	• 2009 – 2017 Adult Ohio and U.S. Correlating Statistics	www.cdc.gov
CDC, Alcohol & Public Health	• Economic Costs of Excessive Alcohol Use	www.cdc.gov/features/costsofdrinking/index.html
CDC, Breast Cancer	• What Can I do to Reduce My Risk of Breast Cancer?	www.cdc.gov/cancer/breast/basic_info/prevention.htm
CDC, Colorectal (Colon) Cancer	• Colorectal Cancer Risk Factors	https://www.cdc.gov/cancer/colorectal/basic_info/risk_factors.htm
CDC, Prostate Cancer	• Screening for Prostate Cancer	www.cdc.gov/cancer/prostate/basic_info/benefits-harms.htm
CDC, Diabetes	• About Diabetes	www.cdc.gov/diabetes/basics/diabetes.html
CDC, National Center for Health Statistics	• Men's Health	www.cdc.gov/nchs/fastats/mens-health.htm
	• Women's Health	www.cdc.gov/nchs/fastats/womens-health.htm
CDC, Oral Health	• Facts About Adult Oral Health	www.cdc.gov/oralhealth/basics/adult-oral-health/index.html
CDC, Overweight and Obesity	• Health Effects of Childhood Obesity	www.cdc.gov/obesity/childhood/causes.html
CDC, Smoking & Tobacco Use	• E-Cigarette Health Effects	www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html
CDC, Vital Signs, Suicide Rising Across the U.S.	• Suicide Rising Across the U.S.	www.cdc.gov/vitalsigns/suicide/index.html
CDC, Violence Prevention	• Adverse Childhood Experiences	www.cdc.gov/violenceprevention/acestudy/index.html
CDC Wonder, About Underlying Cause of Death, 2009-2017	• U.S. comparison statistics	https://wonder.cdc.gov/
County Health Rankings, 2018	• Food Environment Index	http://countyhealthrankings.org
Deterra® drug deactivation system	• Deterra Pouch Data	https://deterrasystem.com/faq/
Healthy People 2020: U.S. Department of Health & Human Services	• All Healthy People 2020 Target Data Points • Social Determinants of Health	www.healthypeople.gov/2020/topicsobjectives2020

Source	Data Used	Website
National Institute on Drug Abuse	• Heroin Facts	https://www.drugabuse.gov/publications/drugfacts/heroin
National Alliance on Mental Illness	• Common Signs of Mental Illness in Adults	https://www.nami.org/learn-more/know-the-warning-signs
Ohio Department of Health	• 2017 Ohio Drug Overdose Data: General Finding	www.odh.ohio.gov/-/media/ODH/ASSETS/Files/health/injury-prevention/2016-Ohio-Drug-Overdose-Report-FINAL.pdf
Ohio Department of Health, Public Health Data Warehouse	• Leading Causes of Death, 2015-2017 • Age-Adjusted Mortality Rates, 2015-2017 • Incidence of Cancer • Prescription Opiate Related Drug Overdose • Unintentional Drug Overdose Deaths • Suicide Deaths	http://publicapps.odh.ohio.gov/EDW/DataBrowser/Browse/Mortality
Ohio Department of Health, STD Surveillance	• Chlamydia Annualized Disease Rates and Cases, 2014-2018 • Gonorrhea Annualized Disease Rates and Cases, 2014-2018	https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/std-surveillance/data-and-statistics/sexually-transmitted-diseases-data-and-statistics
Ohio Development Services Agency	• Ohio Poverty Report, (2013-2017)	www.development.ohio.gov/files/research/P7005.pdf
Ohio Automated Rx Reporting System (OARRS), 2017-2018	• Opiate and Pain Reliever Doses Per Capita • Opiate and Pain Reliever Doses Per Patient • Ohio Automated Rx Reporting System (OARRS)	www.ohiopmp.gov/County.aspx
Ohio State Highway Patrol	• Felony Drug Cases	https://ohiohighwaysafetyoffice.ohio.gov/stats/2019_FelonyAndDrug.pdf
Rape, Abuse and Incest National Network (RAINN)	• Scope of the Problem, Sexual Violence	https://www.rainn.org/statistics/scope-problem
U.S. Food and Drug Administration	• Disposal of Unused Medicines	https://www.fda.gov/drugs/safe-disposal-medicines/disposal-unused-medicines-what-you-should-know
U.S. Department of Health and Human Services, Surgeon General.gov	• E-Cigarette Use Among Youth and Young Adults	www.surgeongeneral.gov/library/reports/50-years-of-progress/index.html

Appendix II: Acronyms and Terms

AHS	Access to Health Services, Topic of Healthy People 2020 objectives
Adult	Defined as 19 years of age and older.
Age-Adjusted Mortality Rates	Death rate per 100,000 adjusted for the age distribution of the population.
Adult Binge Drinking	Consumption of five alcoholic beverages or more (for males) or four or more alcoholic beverages (for females) on one occasion.
AOCBC	Arthritis, Osteoporosis, and Chronic Back Conditions
BMI	Body Mass Index is defined as the contrasting measurement/relationship of weight to height.
BRFSS	Behavior Risk Factor Surveillance System, an adult survey conducted by the CDC.
CDC	Centers for Disease Control and Prevention.
CHA	Community Health Assessment: A collaborative, county-level health assessment conducted by the health department and other community members to measure the health status of the population. It is required by the Public Health Accreditation Board (PHAB) and is conducted every 3 years in Ohio. The data collected from a CHA informs the community health improvement plan (CHIP).
CHIP	Community Health Improvement Plan: A collaborative, county-level improvement plan conducted by the health department and other community members that identifies priorities, strategies, and measurable indicators to address health needs identified in the CHA. It is required by the Public Health Accreditation Board (PHAB) and is conducted every 3 years in Ohio. CHIP's are required to align with the SHIP beginning in 2020.
CHNA	Community Health Needs Assessment: A health assessment conducted by hospitals to measure the health status of the population. It is required by Section 501(r) of the Internal Revenue Code and conducted every 3 years. The data collected from a CHNA informs the implementation plan (IP).
CHR	County Health Rankings
Current Smoker	Individual who has smoked at least 100 cigarettes in their lifetime and now smokes daily or on some days.
CY	Calendar Year
FY	Fiscal Year
HCNO	Hospital Council of Northwest Ohio
HDS	Heart Disease and Stroke, Topic of Healthy People 2020 objectives
HP 2020	Healthy People 2020, a comprehensive set of health objectives published by the Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services.
Health Indicator	A measure of the health of people in a community, such as cancer mortality rates, rates of obesity, or incidence of cigarette smoking.

High Blood Cholesterol	240 mg/dL and above
High Blood Pressure	Systolic ≥140 and Diastolic ≥ 90
IID	Immunizations and Infectious Diseases, Topic of Healthy People 2020 objectives
IS	Implementation Strategy: A hospital plan that identifies priorities, strategies, and measurable indicators to address health needs identified in the CHNA. It is required by Section 501(r) of the Internal Revenue Code and conducted every 3 years. IP's are required to align with the SHIP beginning in 2020.
MAPP	Mobilizing for Planning and Partnerships
N/A	Data is not available.
ODH	Ohio Department of Health
OSHP	Ohio State Highway Patrol
Ohio state law (ORC 3701.981)	A state law that requires all hospitals to collaborate with their local health departments on CHAs and CHIPs.
PHAB	Public Health Accreditation Board: A national body that issues accreditation to health departments based on a set of standards. All health departments in Ohio are mandated to become accredited by 2020.
Race/Ethnicity	Census 2010: U.S. Census data consider race and Hispanic origin separately. Census 2010 adhered to the standards of the Office of Management and Budget (OMB), which define Hispanic or Latino as "a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race." Data are presented as "Hispanic or Latino" and "Not Hispanic or Latino." Census 2010 reported five race categories including: White, Black or African American, American Indian & Alaska Native, Asian, Native Hawaiian and Other Pacific Islander. Data reported, "White alone" or "Black alone", means the respondents reported only one race.
SHA	State Health Assessment: A health assessment conducted by the state of Ohio to measure the health status of Ohioans. It is conducted every 3 years. The data collected from a SHA informs the state health improvement plan (SHIP).
SHIP	State Health Improvement Plan: An improvement plan conducted by the state of Ohio that contains priorities, strategies, and measurable indicators to address health needs identified in the SHA. The SHIP is conducted every 3 years and serves as a guide for local improvement plans and hospital implementation plans.
UH	University Hospitals
YPLL/65	Years of Potential Life Lost before age 65. Indicator of premature death.

Appendix III: Methods for Weighting the 2019 Geauga County Health Assessment Data

Data from sample surveys have the potential for bias if there are different rates of response for different segments of the population. In other words, some subgroups of the population may be more represented in the completed surveys than they are in the population from which those surveys are sampled. If a sample has 25% of its respondents being male and 75% being female, then the sample is biased towards the views of females (if females respond differently than males). This same phenomenon holds true for any possible characteristic that may alter how an individual responds to the survey items.

In some cases, the procedures of the survey methods may purposefully over-sample a segment of the population in order to gain an appropriate number of responses from that subgroup for appropriate data analysis when investigating them separately (this is often done for minority groups). Whether the over-sampling is done inadvertently or purposefully, the data needs to be weighted so that the proportioned characteristics of the sample accurately reflect the proportioned characteristics of the population. In the 2019 Geauga County survey, a weighting was applied prior to the analysis that weighted the survey respondents to reflect the actual distribution of Geauga County based on age, sex, race, and income.

Weightings were created for each category within sex (male, female), race (White, Non-White), Age (8 different age categories), and income (7 different income categories). The numerical value of the weight for each category was calculated by taking the percent of Geauga County within the specific category and dividing that by the percent of the sample within that same specific category. Using sex as an example, the following represents the data from the 2010 Geauga County Survey and the 2017 Census estimates.

2019 Geauga Survey			**2017 Census**			**Weight**
Sex	Number	Percent	Number	Sex	Number	Percent
Male	199	52.23097	46,220	Male	199	52.23097
Female	182	47.76903	47,675	Female	182	47.76903

In this example, it shows that there was a larger portion of males in the sample compared to the actual portion in Geauga County. The weighting for males was calculated by taking the percent of males in Geauga County (based on Census information) (49.22520%) and dividing that by the percent found in the 2019 Geauga County sample (52.23097%) [49.22520 / 52.23097= weighting of 0.942452 for males]. The same was done for females [50.77480/47.76903 = weighting of 1.062923 for females]. Thus, males' responses are weighted less by a factor of 0.942452 and females' responses weighted heavier by a factor of 1.062923.

This same thing was done for each of the 19 specific categories as described above. For example, a respondent who was female, White, in the age category 35-44, and with a household income in the $50-$75k category would have an individual weighting of 1.31055 [1.06292 (weight for females) x 1.04782 (weight for White) x 1.20602 (weight for age 35-44) x 0.97569 (weight for income $50-$75k)]. Thus, each individual in the 2019 Geauga County sample has their own individual weighting based on their combination of age, race, sex, and income. See next page for each specific weighting and the numbers from which they were calculated.

Multiple sets of weightings were created and used in the statistical software package (SPSS 24.0) when calculating frequencies. For analyses done for the entire sample and analyses done based on subgroups other than age, race, sex, or income – the weightings that were calculated based on the product of the four weighting variables (age, race, sex, income) for each individual. When analyses were done comparing groups within one of the four weighting variables (e.g., smoking status by race/ethnicity), that specific variable was not used in the weighting score that was applied in the software package. In the example smoking status by race, the weighting score that was applied during analysis included only age, sex, and income. Thus, a total of eight weighting scores for each individual were created and applied depending on the analysis conducted. The weight categories were as follows:

1. **Total weight** (product of 4 weights) – for all analyses that did not separate age, race, sex, or income.
2. **Weight without sex** (product of age, race, and income weights) – used when analyzing by sex.
3. **Weight without age** (product of sex, race, and income weights) – used when analyzing by age.
4. **Weight without race** (product of age, sex, and income weights) – used when analyzing by race.
5. **Weight without income** (product of age, race, and sex weights) – used when analyzing by income.
6. **Weight without sex or age** (product of race and income weights) – used when analyzing by sex and age.
7. **Weight without sex or race** (product of age and income weights) – used when analyzing by sex and race.
8. **Weight without sex or income** (product of age and race weights) – used when analyzing by sex and income.

Category	2019 Geauga County Sample	%	2017 Census	%	Weighting Value
Sex:					
Male	199	52.23097	46,220	49.22512	0.942452
Female	182	47.76903	47,675	50.77480	1.062923
Age:					
20 to 34 years	27	7.35695	13,131	13.98477	2.57855
35 to 44 years	43	11.71662	9,781	10.41696	1.20602
45 to 54 years	50	13.62398	14,186	15.10837	1.50429
55 to 59 years	46	12.53406	8,449	8.99835	0.97384
60 to 64 years	38	10.35422	6,256	6.66276	0.87288
65 to 74 years	106	28.88283	10,187	10.84935	0.50954
75 to 84 years	48	13.07902	9,372	9.98136	0.56820
85+ years	9	2.45232	2,085	2.22057	1.22830
Race:					
White	350	91.38381	90,792	96.69524	1.04782
Non-White	33	8.61619	3,154	3.35907	0.49282
Household Income:					
Less than $24,999	37	10.91445	4,320	12.30033	1.12306
$25,000 to $34,999	23	6.78466	2,107	5.99926	0.88802
$35,000 to $49,999	35	10.32448	4,636	13.20008	1.27852
$50,000 to $74,999	60	17.69912	6,076	17.30019	0.97569
$75,000 to $99,999	35	10.32448	4,812	13.70120	1.32265
$100,000 to $149,999	65	19.17404	6,813	19.39865	1.01305
$150,000 or more	84	24.77876	6,392	18.19994	0.73323

Appendix IV: Geauga County Sample Demographic Profile*

Adult Variable	2019 Geauga County Adult Survey Sample	Geauga County Census 2013-2017 (5-year estimates)	Ohio Census 2017 (1-year estimates)
Age			
20-29	2.3%	9.9%	13.3%
30-39	9.1%	8.5%	12.5%
40-49	11.5%	13.2%	12.0%
50-59	20.3%	16.9%	13.7%
60 plus	52.5%	25.2%	23.4%
Race/Ethnicity			
White	91.4%	96.7%	81.3%
Black or African American	0.5%	1.2%	12.4%
American Indian and Alaska Native	0.3%	0.1%	0.2%
Asian	0.8%	0.6%	2.2%
Other	2.9%	0.1%	0.9%
Hispanic Origin (may be of any race)	0.5%	1.4%	3.7%
Marital Status†			
Married Couple	69.8%	61.6%	47.4%
Never been married/member of an unmarried couple	8.3%	23.9%	32.6%
Divorced/Separated	12.9%	9.1%	13.7%
Widowed	8.9%	5.3%	6.3%
Education†			
Less than High School Diploma	5.2%	9.8%	9.7%
High School Diploma	20.6%	25.5%	33.3%
Some college/ College graduate	73.8%	64.8%	56.9%
Income (Families)			
$14,999 and less	3.6%	3.1%	6.9%
$15,000 to $24,999	6.0%	2.9%	6.6%
$25,000 to $49,999	15.1%	16.6%	21.2%
$50,000 to $74,999	15.6%	17.4%	19.5%
$75,000 or more	47.9%	60.1%	45.9%

** The percents reported are the actual percent within each category who responded to the survey. The data contained within the report however are based on weighted data (weighted by age, race, sex, and income). Percents may not add to 100% due to missing data (non-responses).*

† The Ohio and Geauga County Census percentages are slightly different than the percent who responded to the survey. Marital status is calculated for those individuals 15 years and older. Education is calculated for those 25 years and older.

Appendix V: Demographics and Household Information

Geauga County Population by Age Groups and Gender
U.S. Census 2010

Age	Total	Males	Females
Geauga County	**93,389**	**45,902**	**47,487**
0-4 years	**5,211**	**2,680**	**2,531**
1-4 years	4,269	2,200	2,069
< 1 year	942	480	462
1-2 years	1,946	1,020	926
3-4 years	2,323	1,180	1,143
5-9 years	**6,760**	**3,463**	**3,297**
5-6 years	2,588	1,343	1,245
7-9 years	4,172	2,120	2,052
10-14 years	**7,457**	**3,847**	**3,610**
10-12 years	4,327	2,254	2,073
13-14 years	3,130	1,593	1,537
12-18 years	10,673	5,502	5,171
15-19 years	**6,952**	**3,600**	**3,352**
15-17 years	4,809	2,475	2,334
18-19 years	2,143	1,125	1,018
20-24 years	4,027	2,093	1,934
25-29 years	3,488	1,759	1,729
30-34 years	3,711	1,777	1,934
35-39 years	4,884	2,382	2,502
40-44 years	6,700	3,204	3,496
45-49 years	7,708	3,716	3,992
50-54 years	8,453	4,189	4,264
55-59 years	7,355	3,693	3,662
60-64 years	6,209	3,082	3,127
65-69 years	4,751	2,300	2,451
70-74 years	3,257	1,586	1,671
75-79 years	2,515	1,123	1,392
80-84 years	1,979	783	1,196
85-89 years	1,256	444	812
90-94 years	523	139	384
95-99 years	180	40	140
100-104 years	12	2	10
105-109 years	1	0	1
110 years & over	0	0	0
Total 85 years and over	**1,972**	**625**	**1,347**
Total 65 years and over	**14,474**	**6,417**	**8,057**
Total 19 years and over	**67,862**	**32,766**	**35,096**

GEAUGA COUNTY PROFILE

(Source: U.S. Census Bureau, 2013-2017)
2013-2017 ACS 5-year estimates

General Demographic Characteristics

	Number	Percent (%)
Total Population		
2017 Total Population	93,895	100%
Largest City – Chardon		
2017 Total Population	5,166	100%
Population by Race/Ethnicity		
Total Population	93,895	100%
White	90792	96.7%
Hispanic or Latino (of any race)	1279	1.4%
Black or African American	1170	1.2%
Asian	600	0.6%
American Indian and Alaska Native	105	0.1%
Some other race	112	0.1%
Two or more races	1,116	1.2%
Population by Age		
Under 5 years	4,934	5.3%
5 to 19 years	19,742	21.0%
20 to 24 years	5,458	5.8%
25 to 44 years	17,454	18.6%
45 to 64 years	28,891	30.8%
65 years and more	17,416	18.5%
Median age (years)	**44.4**	**N/A**
Household by Type		
Total households	35,121	100%
Total families	26,259	74.8%
Households with children <18 years	10,051	28.6%
Married-couple family household	22,739	64.7%
Married-couple family household with children <18 years	8,521	24.3%
Female householder, no husband present	2,456	7.0%
Female householder, no husband present with children <18 years	1,143	3.3%
Nonfamily household (single person)	8,862	25.2%
Nonfamily household (single person) living alone	28,308	80.6%
Nonfamily household (single person) 65 years and >	12,995	37.0%
Households with one or more people <18 years	10,747	30.6%
Households with one or more people 60 years and >	15,067	42.9%
Average household size	2.65 people	N/A
Average family size	3.09 people	N/A

General Demographic Characteristics, Continued

Housing Occupancy		
Median value of owner-occupied units	$228,000	N/A
Median housing units with a mortgage	$1,587	N/A
Median housing units without a mortgage	$571	N/A
Median value of occupied units paying rent	$813	N/A
Median rooms per total housing unit	7.0	N/A
Total occupied housing units	35,121	N/A
No telephone service available	1,045	3.0%
Lacking complete kitchen facilities	983	2.8%
Lacking complete plumbing facilities	159	0.5%

Selected Social Characteristics

School Enrollment		
Population 3 years and over enrolled in school	21,311	100%
Nursery & preschool	1,229	5.8%
Kindergarten	750	3.5%
Elementary School (Grades 1-8)	10,588	49.7%
High School (Grades 9-12)	5,065	23.8%
College or Graduate School	3,679	17.2%
Educational Attainment		
Population 25 years and over	63,761	100%
< 9th grade education	3,732	5.9%
9th to 12th grade, no diploma	2,458	3.9%
High school graduate (includes equivalency)	16,237	25.5%
Some college, no degree	12,007	18.8%
Associate degree	5,129	8.0%
Bachelor's degree	15,660	24.6%
Graduate or professional degree	8,538	13.4%
Percent high school graduate or higher	N/A	90.3%
Percent Bachelor's degree or higher	N/A	38.0%
Marital Status		
Population 15 years and over	76,018	100%
Never married	18,168	23.9%
Now married, excluding separated	46,827	61.6%
Separated	608	0.8%
Widowed	4,029	5.3%
Widowed females	6,309	8.3%
Divorced	6,309	8.3%
Divorced females	6,538	8.6%
Veteran Status		
Civilian population 18 years and over	71,562	100%
Veterans 18 years and over	5,482	7.7%

Selected Social Characteristics, Continued

Disability Status of the Civilian Non-Institutionalized Population		
Total civilian noninstitutionalized population	93,218	100%
Civilian with a disability	9,626	10.3%
Under 18 years	22,317	10.3%
Under 18 years with a disability	36	23.9%
18 to 64 years	54,065	0.04%
18 to 64 years with a disability	894	58.0%
65 Years and over	16,836	1.0%
65 Years and over with a disability	2,181	18.1%

Selected Economic Characteristics

Employment Status		
Population 16 years and over	74,604	100%
16 years and over in labor force	48,866	65.5%
16 years and over not in labor force	25,738	34.5%
Females 16 years and over	38,069	100%
Females 16 years and over in labor force	22,270	58.5%
Population living with own children <6 years	5,651	100%
All parents in family in labor force	2,927	51.8%
Class of Worker		
Civilian employed population 16 years and over	47,123	100%
Private wage and salary workers	38,688	82.1%
Government workers	4,524	9.6%
Self-employed workers in own not incorporated business	3,817	8.1%
Unpaid family workers	47	0.1%
Occupations		
Employed civilian population 16 years and over	47,123	100%
Management, business, science, and arts occupations	19,226	40.8%
Sales and office occupations	10,980	23.3%
Service occupations	6,974	14.8%
Production, transportation, and material moving occupations	5,325	11.3%
Natural resources, construction, and maintenance occupations	4,618	9.8%
Leading Industries		
Employed civilian population 16 years and over	47,123	100%
Educational services, and health care and social assistance	9,896	21.0%
Manufacturing	7,681	16.3%
Professional, scientific, and management, and administrative and waste management services	5,608	11.9%
Retail trade	4,854	10.3%
Construction	4,430	9.4%
Finance and insurance, and real estate and rental and leasing	3,346	7.1%
Arts, entertainment, and recreation, and accommodation and food services	3,299	7.0%
Other services, except public administration	2,262	4.8%
Transportation and warehousing, and utilities	1,602	3.4%
Public administration	1,461	3.1%
Wholesale trade	1,414	3.0%
Information	754	1.6%
Agriculture, forestry, fishing and hunting, and mining	565	1.2%

Selected Economic Characteristics, Continued

Income In 2017		
Households	35,121	100%
< $10,000	1,194	3.4%
$10,000 to $14,999	1,054	3.0%
$15,000 to $24,999	2,072	5.9%
$25,000 to $34,999	2,107	6.0%
$35,000 to $49,999	4,636	13.2%
$50,000 to $74,999	6,076	17.3%
$75,000 to $99,999	4,812	13.7%
$100,000 to $149,999	6,813	19.4%
$150,000 to $199,999	3,161	9.0%
$200,000 or more	3,231	9.2%
Median household income	**$77,104**	N/A
Income in 2017		
Families	26,259	100%
< $10,000	473	1.8%
$10,000 to $14,999	341	1.3%
$15,000 to $24,999	762	2.9%
$25,000 to $34,999	1,260	4.8%
$35,000 to $49,999	3,099	11.8%
$50,000 to $74,999	4,569	17.4%
$75,000 to $99,999	3,860	14.7%
$100,000 to $149,999	6,092	23.2%
$150,000 to $199,999	2,888	11.0%
$200,000 or more	2,941	11.2%
Median family income	***$90,910***	N/A
Per capita income in 2017	**$39,513**	N/A
Poverty Status in 2017		
Families	4,008	4.3%
Individuals	6,059	6.5%

Bureau of Economic Analysis (BEA)
Per Capita Personal Income (PCPI) Figures

	Income	Rank of Ohio Counties
BEA Per Capita Personal Income 2017	$66,214	2nd of 88 counties
BEA Per Capita Personal Income 2016	$63,762	2nd of 88 counties
BEA Per Capita Personal Income 2015	$62,464	2nd of 88 counties
BEA Per Capita Personal Income 2014	$60,948	2nd of 88 counties
BEA Per Capita Personal Income 2013	$57,945	3rd of 88 counties

(Source: Bureau of Economic Analysis, https://apps.bea.gov/iTable/index_regional.cfm)
Note: BEA PCPI figures are greater than Census figures for comparable years due to deductions for retirement, Medicaid, Medicare payments, and the value of food stamps, among other things

Poverty Rates, 2013-2017 5-year averages

Category	Geauga County	Ohio
Population in poverty	6.5%	14.9%
< 125% FPL (%)	9.7%	19.3%
< 150% FPL (%)	13.3%	23.6%
< 200% FPL (%)	20.2%	32.5%
Population in poverty (2002)	5.5%	10.2%

(Source: The Ohio Poverty Report, Ohio Development Services Agency, February 2019, http://www.development.ohio.gov/files/research/P7005.pdf)

Employment Statistics

Category	Geauga County	Ohio
Labor Force	48,900	5,788,200
Employed	46,600	5,519,000
Unemployed	2,200	269,200
Unemployment Rate* in April 2019	3.3	3.3
Unemployment Rate* in March 2019	4.0	4.1
Unemployment Rate* in April 2018	4.1	4.3

**Rate equals unemployment divided by labor force.*
(Source: Ohio Department of Job and Family Services, April 2019, http://ohiolmi.com/laus/OhioCivilianLaborForceEstimates.pdf http://ohiolmi.com/laus/current.htm)

Estimated Poverty Status in 2017

Age Groups	Number	90% Confidence Interval	Percent	90% Confidence Interval
Geauga County				
All ages in poverty	5,933	4,976 to 6,890	6.4%	5.4 to 7.4
Ages 0-17 in poverty	1,558	1,186 to 1,930	7.2%	5.5 to 8.9
Ages 5-17 in families in poverty	1,058	773 to 1,343	6.4%	4.7 to 8.1
Median household income	$82,744	$78,342 to $87,146		
Ohio				
All ages in poverty	1,575,401	1,551,281 to 1,599,521	13.9%	13.7 to 14.1
Ages 0-17 in poverty	507,119	493,056 to 521,182	19.8%	19.2 to 20.4
Ages 5-17 in families in poverty	339,888	328,221 to 351,555	18.2%	17.6 to 18.8
Median household income	$54,077	$53,670 to $54,484		
United States				
All ages in poverty	42,583,651	42,342,619 to 42,824,683	13.4%	13.3 to 13.5
Ages 0-17 in poverty	13,353,202	13,229,339 to 13,477,065	18.4%	18.2 to 18.6
Ages 5-17 in families in poverty	9,120,503	9,033,090 to 9,207,916	17.3%	17.1 to 17.5
Median household income	$60,336	$60,250 to $60,422		

(Source: U.S. Census Bureau, 2017 Poverty and Median Income Estimates, https://www.census.gov/data/datasets/2017/demo/saipe/2017-state-and-county.html)

Federal Poverty Thresholds in 2018 by Size of Family and Number of Related Children Under 18 Years of Age

Size of Family Unit	No Children	One Child	Two Children	Three Children	Four Children	Five Children
1 Person <65 years	$13,064					
1 Person 65 and >	$12,043					
2 people Householder < 65 years	$16,815	$17,308				
2 People Householder 65 and >	$15,178	$17,242				
3 People	$19,642	$20,212	$20,231			
4 People	$25,900	$26,324	$25,465	$26,324		
5 People	$31,234	$31,689	$30,718	$31,689	$30,718	
6 People	$35,925	$36,068	$35,324	$36,068	$35,324	$36,068
7 People	$41,336	$41,594	$40,705	$41,594	$40,705	$41,594
8 People	$46,231	$46,640	$45,800	$46,640	$45,800	$46,640
9 People or >	$55,613	$55,883	$55,140	$55,883	$55,140	$55,883

(Source: U. S. Census Bureau, Poverty Thresholds 2018, https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html)

Appendix VI: County Health Rankings

	Geauga County 2019	Ohio 2019	U.S. 2019
Health Outcomes			
Premature death. Years of potential life lost before age 75 per 100,000 population (age-adjusted) (2015-2017)	5,500	8,500	6,900
Overall heath. Percentage of adults reporting fair or poor health (age-adjusted) (2016)	12%	17%	16%
Physical health. Average number of physically unhealthy days reported in past 30 days (age-adjusted) (2016)	3.3	4.0	3.7
Mental health. Average number of mentally unhealthy days reported in past 30 days (age-adjusted) (2016)	3.6	4.3	3.8
Maternal and infant health. Percentage of live births with low birthweight (< 2500 grams) (2011-2017)	6%	9%	8%
Health Behaviors			
Tobacco. Percentage of adults who are current smokers (2016)	16%	23%	17%
Obesity. Percentage of adults that report a BMI of 30 or more (2015)	28%	32%	29%
Food environment. Index of factors that contribute to a healthy food environment, 0 (worst) to 10 (best) (2015 and 2016)	8.8	6.7	7.7
Physical inactivity. Percentage of adults aged 20 and over reporting no leisure-time physical activity (2015)	25%	25%	22%
Active living environment. Percentage of population with adequate access to locations for physical activity (2010 & 2018)	82%	84%	84%
Drug and alcohol abuse. Percentage of adults reporting binge or heavy drinking (2016)	18%	19%	18%
Drug and alcohol abuse and injury. Percentage of driving deaths with alcohol involvement (2013-2017)	31%	33%	29%
Infectious disease. Number of newly diagnosed chlamydia cases per 100,000 population (2016)	190	521	497.3
Sexual and reproductive health. Teen birth rate per 1,000 female population, ages 15-19 (2011-2017)	7	26	25

(Source: County Health Rankings, 2019)

	Geauga County 2019	Ohio 2019	U.S. 2019
Clinical Care			
Coverage and affordability. Percentage of population under age 65 without health insurance (2016)	8%	7%	10%
Access to health care/medical care. Ratio of population to primary care physicians (2016)	1,430:1	1,300:1	1,330:1
Access to dental care. Ratio of population to dentists (2017)	2,180:1	1,620:1	1,460:1
Access to behavioral health care. Ratio of population to mental health providers (2018)	500:1	470:1	440:1
Hospital utilization. Number of hospital stays for ambulatory-care sensitive conditions per 1,000 Medicare enrollees (2016)	4,130	5,135	4,520
Mammography screening. Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening (2016)	46%	41%	41%
Flu vaccinations. Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination (2016)	49%	47%	45%
Social and Economic Factors			
Education. Percentage of ninth-grade cohort that graduates in four years (2017-2018)	96%	85%	85%
Education. Percentage of adults ages 25-44 years with some post-secondary education (2013-2017)	67%	65%	65%
Employment, poverty, and income. Percentage of population ages 16 and older unemployed but seeking work (2017)	4%	5%	4%
Employment, poverty, and income. Percentage of children under age 18 in poverty (2017)	7%	20%	18%
Employment, poverty, and income. Ratio of household income at the 80th percentile to income at the 20th percentile (2013-2017)	3.9	4.8	4.9
Family and social support. Percentage of children that live in a household headed by single parent (2013-2017)	14%	36%	33%
Family and social support. Number of membership associations per 10,000 population (2016)	9.9	11	9
Violence. Number of reported violent crime offenses per 100,000 population (2014 and 2016)	36	293	386
Injury. Number of deaths due to injury per 100,000 population (2013-2017)	59	82	67

(Source: County Health Rankings, 2019)

	Geauga County 2019	Ohio 2019	U.S. 2019
Physical Environment			
Air, water, and toxic substances. Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) (2014)	11.6	11.5	8.6
Air, water, and toxic substances. Indicator of the presence of health-related drinking water violations. Yes - indicates the presence of a violation, No - indicates no violation (2017)	Yes	N/A	N/A
Housing. Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, or lack of kitchen or plumbing facilities (2011-2015)	13%	15%	19%
Transportation. Percentage of the workforce that drives alone to work (2013-2017)	79%	83%	76%
Transportation. Among workers who commute in their car alone, the percentage that commute more than 30 minutes (2013-2017)	46%	30%	35%

(Source: County Health Rankings, 2019)

Appendix VII: Potential Resources Available

Priorities

Geauga County is focused on the following three priority areas: mental health, addiction, and chronic disease. Additionally, Portage County will focus their efforts and strategies on factors that affect all three priority areas: public health system, prevention and health behaviors; healthcare system and access; and social determinants of health.

The following is a list of potential resources available to meet identified community health priorities:

Priority Area	Coordinating Agencies and Team Members
Mental Health	Coordination Agencies: • Geauga County Board of Mental Health and Recovery Services • Ravenwood Health • NAMI Geauga County Potential Supporting Resources: • Geauga County Public Schools • Lake Geauga Recovery Center • Partnership for a Healthy Geauga • Geauga Public Health • Torchlight Youth Mentoring Alliance • University Hospitals Geauga Medical Center
Addiction	Coordination Agencies: • Ravenwood Health • Lake Geauga Recovery • Ravenwood Health • Geauga Public Health Potential Supporting Resources: • Geauga County Public Schools • Partnership for a Healthy Geauga • Torchlight Youth Mentoring Alliance • University Hospitals Geauga Medical Center
Chronic Disease	Coordination Agencies: • University Hospitals Geauga Medical Center • YMCA Potential Supporting Resources: • Partnership for a Healthy Geauga • Geauga Public Health • University Hospitals Geauga Medical Center • YMCA • Area Office on Aging • OSU Extension

Hospital Requirement

UH Geauga Medical Center more specifically identified the following potential resources available to meet the three identified priorities:

Mental Health

- Conduct Stop the Bleed workshops in local schools
- Work with mental health & substance abuse community service providers and participate in community events and coalitions to raise awareness of behavioral health warning signs

Addiction

- Work with partners to refer patients for the appropriate treatment
- Connect patients utilizing medical stabilization services to appropriate providers
- Provide health education regarding pain management

Chronic Disease: Prevention/Management

- Provide free health screenings, especially those related to cholesterol, blood sugar, blood pressure
- Provide health and wellness events to the community, including information to increase access to primary care and specialists
- Assist at-risk patients with additional care coordination through a wellness clinic
- Continue outreach to the Amish community to improve access to care

Appendix VIII: Community Health Assessment Supplement: Amish

Geauga Public Health

Community Health Assessment Supplement: Amish

September 2019

GEAUGA PUBLIC HEALTH

Promoting and Protecting Community Health

470 Center St., Building 8, Chardon, OH 44024-1071
440.279.1900 www.gphohio.org

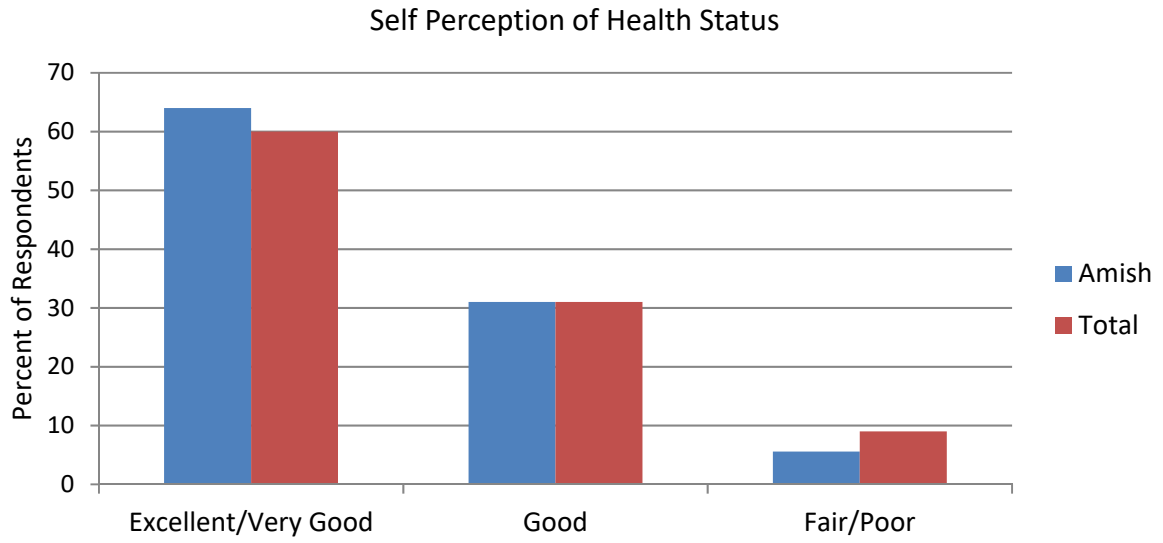
Thomas Quade,
Health Commissioner

Christine Wyers, Nursing Director - David Sage, Environmental Health Director - Alta Wendell, Chief of Administration

The following report is a summary of results from a focused assessment of the health status, health behaviors, and issues of health equity (disproportionately experienced barriers to achieving health) of the Amish community in Geauga County, Ohio conducted by Geauga Public Health. There were 36 individuals who participated. Additionally, public health system partners at the Middlefield Care Center, a clinical setting which caters to the Amish population, has provided secondary data to supplement that which was collected directly from participants. Direct comparisons with the population as a whole should consider the fact that the average age of the participants was 30.7 years and they were all females. This is very different than the sample for the general Community Health Assessment survey so direct comparisons have limited value.

HEALTH STATUS

Overall Health Status: Amish participants were asked to describe their overall health status. 64% of Amish participants described their health as either "excellent" or "very good". This was slightly higher than the results from the total respondents to the community health assessment survey (60%). 6% of Amish participants identified their health status as "Fair" or "Poor". This was slightly lower than the population as a whole (9%).



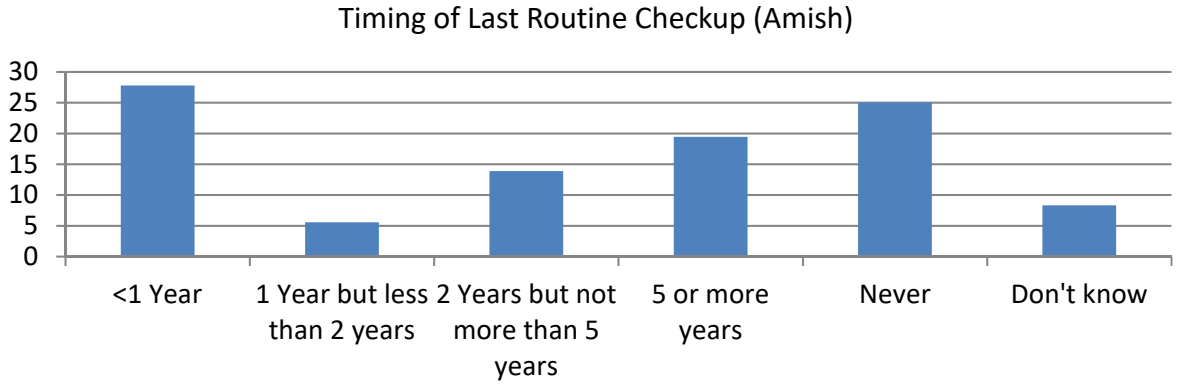
Only four of the participants indicated that they had been told by their doctor that they had diabetes. However, three of them indicated that it was pregnancy related. One had been told that they were pre-diabetic. Similarly, four of the cohort indicated that they had been told by their doctor that they had hypertension and three of those individuals were pregnant at the time.

Quality of Life: None of the Amish participants reported any limitations of activities that were due to any mental or emotional problems or disabilities. Only two of the 36 Amish participants indicated that their activities were limited due to physical problems or disabilities. By contrast, 20% of the total adult population indicated they were limited in some way due to a physical, mental, or emotional problem.

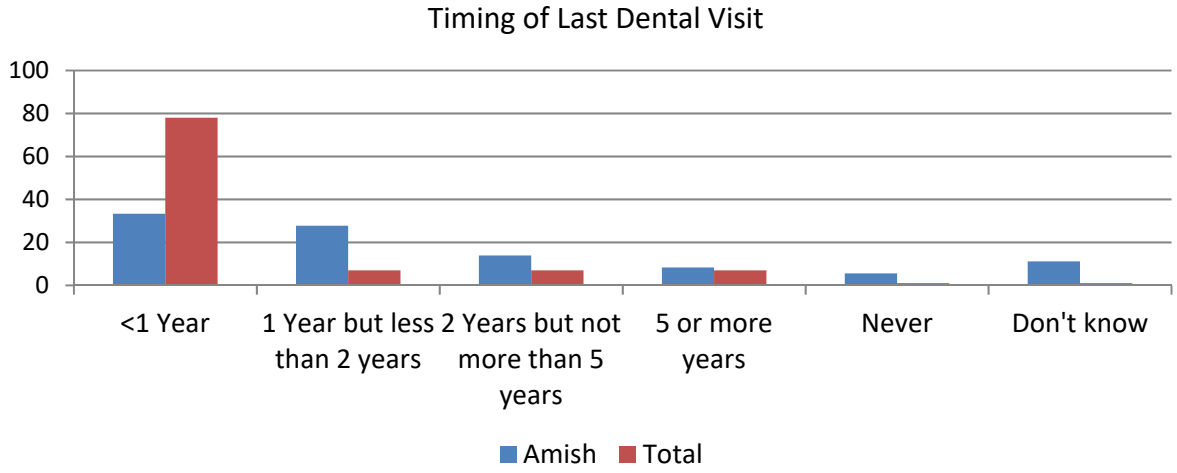
ACCESS TO HEALTHCARE

When asked where they usually go when they are sick or need advice about their health, the majority (92%) indicated that they went to a doctor or healthcare provider's office. Two indicated that they saw family and friends and one indicated that they went to an urgent care center. Participants were asked how long it had been

since their last routine checkup. 27% of the Amish participants reported receiving a routine checkup within the past year. By contrast, 68% of the overall population reported having a routine checkup in the past year. Nearly 45% of the Amish participants reported having their last routine physical as “5 or more years” ago or never having had one. It is a critical finding that, regardless of composition of the group, 25% had never received a routine checkup.



Only one participant identified cost as a reason they did not see a doctor when they needed to within the last 12 months. However, a number of barriers were identified that made it difficult, though not impossible to see a doctor. Several individuals identified cost, scheduling transportation, and finding time as healthcare barriers.



For the Amish, the primary barrier to dental care that was identified was cost (17%). Transportation was their second barrier to dental care.

HEALTH BEHAVIORS

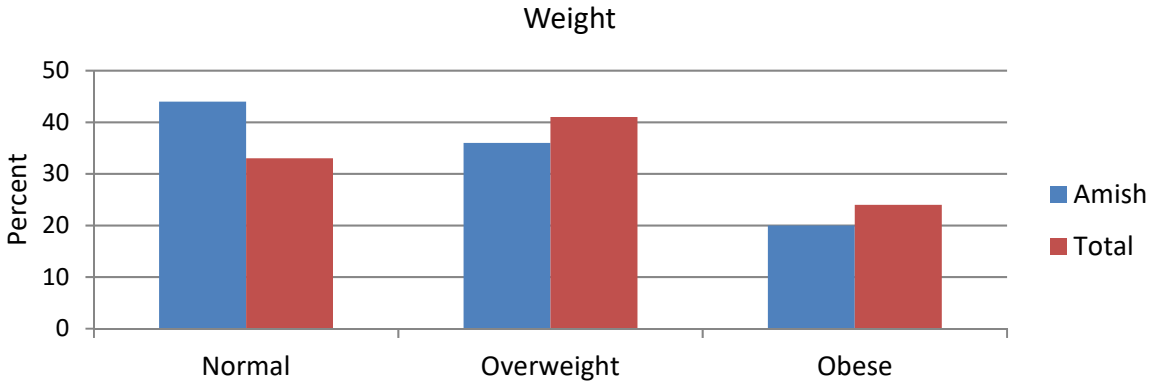
Alcohol Consumption: The majority (77.8%) of participants indicated that they did not have any days in the past month when they had one or more alcoholic beverages. Of those who did have one or more days in which they had an alcoholic beverage, 11.1% had one or more drinks on four or fewer days.

Tobacco Use: The majority (83.3%) of participants indicated that they do not smoke. Only one of the participants indicated that they smoked every day. Slightly more than 10% indicated they smoked one some days.

Physical Activity: One third of those who responded indicated that they had no days in the prior week with at least 30 minutes of physical activity. However, 19.4% of respondents indicated that they had 30 minutes or more of physical activity on seven days of the prior week.

Fruit and Vegetable Consumption: More than 80% of the Amish respondents indicated that they ate two or fewer servings of vegetables on average per day. 14% indicated that they averaged three servings per day. None of the respondents indicated a higher than three serving per day rate of consumption of vegetables. Only 13.9% of respondents indicated that they consume three or more serving of fruit per day.

Obesity: One in five (20%) of the Amish respondents reported a BMI indicating obesity. 36% were overweight and 44% were in the normal weight range. None of the respondents reported a height and weight that, when calculated into a BMI score, indicated they were underweight. By contrast, 24% of the total population were obese, 41% were overweight, and 33% were in the normal range.



Health Equity: Potentially Disproportionately Experienced Barriers to Health

Educational Attainment: Thirty of the 36 participants (83.3%) indicated that their formal education stopped once they completed the eighth grade. One participant had completed the tenth grade. One earned a GED equivalency and the others did not respond.

Barriers to Health Behaviors: 61.1% of respondents did not report any barriers to engaging in physical activity. By far, the primary reason that was reported for not engaging in physical activity was not being able to find the time. Specifically, taking care of children was listed as the reason for lack of time to engage in physical activity. Only three of the respondents identified barriers to consuming fruits and vegetables. The primary reason given was lack of transportation to purchase them.

Conclusions

Though the age and gender differences between the Amish participant group and the total population survey group present challenges to direct comparisons, some findings merit further investigation.

Health Status: The Amish participants self-reported a slightly better health status though this may be influenced by the fact that the cohort was much younger than the total survey sample. However, none of the Amish group reported being limited due to mental or emotional problems and only two of the 36 reported limitations due to

physical problems. It is worth noting that there may be cultural influencers in this self-reported health status data.

Access to Health Care: The Amish participants reported a substantially lower rate of healthcare utilization for routine physical and dental health. This was interesting because they were almost exclusively women or reproductive age and likely to have greater reason to do so. It is worth investigating the cultural influencers at play. The barriers to care were similar to the rural, less affluent population in the community, i.e. cost and availability of transportation. However, those two issues are likely to have different culturally-based upstream origins, i.e. insurance status versus the community cost sharing of healthcare and the availability of a personal car versus dependence on an "Amish taxi".

Health Behaviors: Alcohol and tobacco use were much less prevalent in the Amish group. Physical activity presented an interesting finding. Similar to the population at large, there was a substantial group that engaged in very limited physical activity. However, there was a much larger proportion of the Amish group than the total population who engaged in physical activity on a daily basis. Fruit and vegetable consumption is on par with the population at large, indicating that it is too low in this population as well as the general public. Overweight and obesity rates are high in the Amish group but substantially lower than those for the population as a whole. That is, while they are better than the general public, they are still an issue to be addressed.

Health Equity: Generally, education is seen as a predictor of health. However, in the Amish group of participants, the vast majority reached an 8^{th} grade educational attainment without a negative impact on health. It is reasonable to consider the possibility that the education that occurs within the Amish population outside the classroom, i.e. in the family and religious doctrine, have served to alter that observed correlation between education and health seen in the general population. It is also possible that the disconnect with the marketing forces that facilitate health risk behaviors such as fast food and tobacco marketing would have a positive correlation on health and health behaviors. The issues of time, transportation, and money influence health access and health behaviors in both the Amish participant group and the general population. While they have a similar consequence, the etiologies and therefore solutions, may be different.

Appendix IX: Youth Vaping Focus Group

2018-2019 SCHOOL YEAR. VAPING FOCUS GROUP SUMMARY

Focus Groups were conducted during the student lunch periods for 2 consecutive days. Groups were divided into 7th and 8th graders, 9th and 10th graders and 10th and 11th graders, as the 12th graders were finished for the school year by this time. The groups ranged in size, but the average was 7 students. There were 39 students in total that participated.

MISINFORMATION:

Things students originally were told or thought about vaping

- Vaping isn't bad for you, it's "just flavored water"
- Vaping is cleaner and/or healthier for you than cigarettes
- Vaping is not addictive
- Vaping smells good so it can't be bad for you
- Vaping tastes good
- Vaping can help whiten your teeth

IDENTIFIED THEMES:

Access/location/timing

- Vaping occurs daily in school
- Vaping occurs more often in bathrooms at school, specifically the upstairs boys bathroom/ Boys feeling pressured in the bathrooms when there are groups vaping
- Boys tend to go in groups
- Girls not vaping as much at school but will do it outside of school and post on social media (but tend to be "sneakier" in school)
- It is extremely easy to get a Juul or other vaping device- "all you have to do is stand outside any gas station and ask someone to buy it for you"
- Vaping occurs across all grades but is seen primarily in high school grades (Juniors identified as being the biggest group this school year)
- Many students moving from Vape pods to "cartridges" containing CBD because there is little smell

Perspective on Consequences

- The consequences if you get caught vaping at school- do not think the 3-day suspension is effective, especially to deter the students that do not care about being in school
- Students look at suspensions as a day off and will not make them stop vaping in school
- Punishment does not seem to be effective enough alone to stop students from vaping in school and it may not matter what the consequence is because they "will do it anyway"

Reasons for Use

- Vaping starts out as a social activity, but MANY young people are getting addicted
- Older students influencing younger students to try vaping and students feeling that pressure- they "don't seem to care who they give it to"
- If young people are under a lot of stress, they will be more likely to try Vaping and become addicted
- Identifying alternative ways to handle stress in school
- Students do not all want to learn in school, and many have been turned off from school because of teachers and staff throughout their time in school
- "It would be great if people gave a crap about school!"
- Young people need more support at school
- Vaping in school can be a game- spot who is doing it and who gets away with it in class

Student Concerns

- Vaping is a distraction at school and frustrating to the students that are not vaping because it can take away from learning
- Young people know vaping is bad for them, but it has "become a joke" and a "normality" among young people i.e. you smell it and see it everywhere
- There appears to be a pattern for students who want to learn in class and the others take away that opportunity and then it cycles because more students are stressed, and more students do not want to do anything

Appendix X: Geauga County Chronic Absenteeism

Ohio School Report Card Data

In 2014, the Ohio Department of Education (ODE) began reporting a new measure on its report cards. This measure reflects the percentage of students are deemed to be chronically absent in each school and district. Originally this measure was reported but did not contribute to any letter grade. In 2018, the Chronic Absenteeism Indicator was added to the Indicators Met measure within the Academic Achievement Component on Ohio School Report Cards. This was done to fulfill a requirement in the Federal "Every Student Succeeds Act" which required states to evaluate schools and districts on an indicator of School Quality of Student Success.

The "Chronic Absenteeism Rate" is the percentage of students in a school or district with an individual absence rate at least 10%. To be included in the denominator of this measure, students must be enrolled and have at least 100 hours of possible attendance. Students with 0 attendance hours, 0 excused absence hours, and 0 unexcused absence hours are removed from the calculation

Chronic Absenteeism Indicator

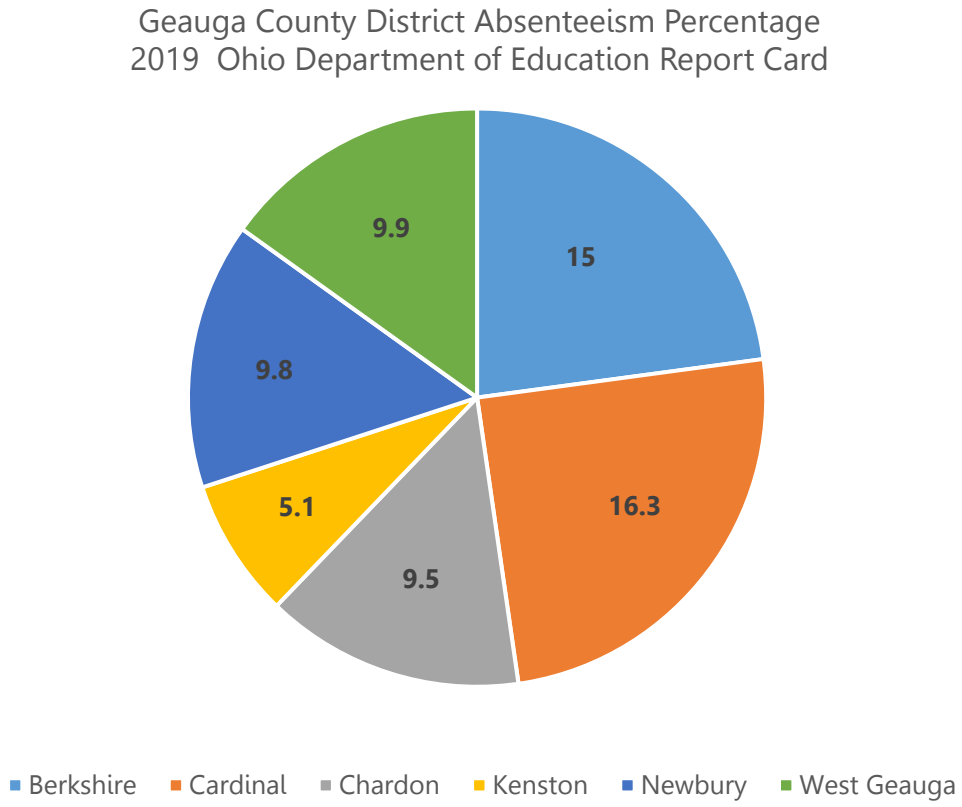
Once calculated, the chronic absenteeism rate will be used to determine whether or not a school or district met or did not meet the Chronic Absenteeism Indicator. The indicator can be met through one of two pathways:

1) **Meet the 2019 goal for chronic absenteeism by having a rate of 12.6% or lower**: In its approved ESSA plan, Ohio set a long-term goal of reducing Ohio's chronic absenteeism percent to 5% by the 2025-2026 school year. As part of that plan, Ohio submitted a series of intermediate targets leading to the long-term goal. The 2019 interim target is 12.6%, so a school, district, or the state would "meet" the indicator if it has a chronic absenteeism percent of 12.6% or lower. This number will decrease annually in equal intervals (subject to rounding) so that the percent needed to meet the goal outright will be as follows in future years—

Year	Goal for Chronic Absenteeism Rate
2017-2018	13.6%
2018-2019	12.6%
2019-2020	11.5%
2020-2021	10.4%
2021-2022	9.3%
2022-2023	8.2%
2023-2024	7.2%
2024-2025	6.1%
2025-2026	5.0%

(Provided by Geauga Public Health)

Geauga County Chronic Absenteeism



(Provided by Geauga Public Health)

Appendix XI: Lake Geauga Ashtabula Tobacco Prevention Coalition

Lake Geauga Ashtabula Tobacco Prevention Coalition: Community Readiness Data

Methodology

The survey was developed by ODH however the Lake Geauga Ashtabula Tobacco Prevention Coalition, added the demographics such as what county do you live in, gender, age and race. The survey was ad mistered via email (survey monkey) and paper (face to face contact).

Limitations

The target population for Geauga County consisted of youth and low income. The survey starts at the age of 18. There is not a section on the survey for a person to choose an income level, so that eliminated knowing whether or not they were low income. The survey was distributed to members of the community at various locations, ie multiunit housing director, assistant director, and housing manager, incarceration population, recovery groups, the survey was also distributed by Geauga Public Health.

Results

Based on the data, the survey was taken primarily by females – 59%, the age group was 25-39 year olds – 27%, all living in Geauga County – 100%, race is prominently white – 94.5% and most are non-tobacco users – 50.5%. See spreadsheet below for the breakdown. All data is that of both the online survey and paper survey combined.

Tobacco use by adults should not be allowed on school grounds or at any school events.		Tobacco use should not be allowed on college or university campuses or at any college-sponsored events.		Smoking should not be allowed in multi-unit housing residences or any living quarters where secondhand smoke infiltration may occur.	
Strongly Agree	64.0%	Strongly Agree	31.5%	Strongly Agree	44.0%
Agree	24.0%	Agree	24.0%	Agree	30.0%
Disagree	9.0%	Disagree	16.0%	Disagree	20.0%
Strongly Disagree	3.0%	Strongly Disagree	4.5%	Strongly Disagree	6.0%

Smoking should not be allowed in outdoor public spaces.		Tobacco use of any kind should not be allowed in outdoor public spaces.		E-cigarettes and other electronic vaping products should be treated the same as regular cigarettes in terms of tobacco laws and policies.	
Strongly Agree	21.0%	Strongly Agree	23.0%	Strongly Agree	29.0%
Agree	17.5%	Agree	17.0%	Agree	35.5%
Disagree	41.5%	Disagree	40.5%	Disagree	23.5%
Strongly Disagree	19.5%	Strongly Disagree	19.0%	Strongly Disagree	12.0%
n/a	0.5%	n/a	0.5%		

Tobacco companies should not be allowed to advertise any tobacco products.		Tobacco companies should not be allowed to advertise any tobacco products towards youth.		The minimum age of purchase and possession of tobacco products should be raised to 21.	
Strongly Agree	31.5%	Strongly Agree	76.0%	Strongly Agree	43.0%
Agree	28.0%	Agree	16.5%	Agree	22.5%
Disagree	34.0%	Disagree	5.5%	Disagree	24.0%
Strongly Disagree	6.5%	Strongly Disagree	2.0%	Strongly Disagree	10.0%
				n/a	0.5%

What county do you live in?		Gender		Are you a...	
Lake	0.0%	Male	38.5%	Tobacco User	29.5%
Geauga	100.0%	Female	59.0%	Former User	19.5%
Ashtabula	0.0%	n/a	2.5%	Non User	50.5%
Other	0.0%			n/a	0.5%

Age		Race			
18-24	11.5%	White	94.5%		
25-39	27.0%	Black	0.5%		
40-49	15.0%	Amer Ind/Alaska	1.0%		
50-59	21.0%	Asian	0.0%		
60+	24.5%	Hispanic/Latino	2.5%		
n/a	1.0%	Native Hawaiian	0.0%		
		Multi Race	1.0%		
		n/a	1.5%		